Dispositional Coping and Personal Control:

A Sex-Based Study Predicting Depression in Recent Retirees

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Abstract

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Research reports indicate that approximately one third of retirees have difficulties adjusting to retirement. Depression is one possible consequence of adjustment difficulty. The present study was aimed at determining the general and sex-specific effects for how dispositional coping strategies and the two components of personal control predict depression in recent retirees. Hierarchical regressions were run separately for each sex while controlling for the effects of subjective stress and demographic variables. The research participants were 188 women and 159 men who had been retired for a maximum of four years after at least 20 years of full time employment. Results showed that both variables of control were negatively associated with depression scores in both sexes; however, in the hierarchical regressions, mastery did not predict statistically significant variance in men's depression scores beyond the variance explained by demographics and stress. For the women low emotion-focused coping and high avoidance significantly predicted higher depression scores. Only high avoidance predicted the men's depression scores. When the interactions between coping and control factors were entered in the last step, they did not explain statistically significant additional variance for either sex, but the results suggested sex-specific interactions which may guide future research. Results also suggest how coping strategy effectiveness may be interpreted in the context of personal control to account for men's and women's individual differences in resilience during the retirement transition.

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Introduction

Retirement has become an important normative stage in the North American lifecycle (Savishinsky, 1995). The percentage of retired Canadian men and women continues to increase due to the aging of the baby boomers, the increasing number of women in the work force since WWII (Richardson, 1999), the increases in life expectancy (Statistics Canada, 2006), and the tendency since the 1950s for workers to take mid-life rather than later-life retirements (Kim & Moen, 2001). More people are spending more time in retirement. In fact, today, one can expect to spend 25 percent of one's life in retirement (Price, 2001). Considering the amount of time spent in retirement and the number of citizens currently in and approaching retirement, predicting the factors that lead to well-being, and potentially enabling well-being, for individuals during this time is a valuable goal.

Previous theories have viewed retirees as a homogenous group and retirement either as a risk factor for declining psychological health or as a beneficial event which increases psychological health. For example, in explaining why retirement would lead to difficulties, Friedmann and Havighurst (1954) described five benefits of work that are lost in retirement: (a) a source of income, (b) a routine which provides structure to life, (c) a basis for personal identity and status, (d) a context for social interactions, and (e) a meaningful experience that can provide a sense of accomplishment. This view suggests that retirement may lead to financial strain, decreases in life structure and work-related goals, loss of social and career-related identity, loss of feelings of productivity, and loss of social ties to the community. These losses are, in turn, theorized to result in decreased psychological health. There has also been support for crisis theories of retirement. For

example, retirement has been associated with identity confusion (Brandtstädter & Renner, 1990), sadness, and decreased feelings of Personal Control (Drentea, 2002).

Other research has shown that retirement is associated with increases in psychological health. For example, Reitzes, Mutran and Fernandez (1996) looked at changes over two years in workers who retired and compared them to two year changes in workers who did not retire. They found that retirement had a positive influence on self-esteem and a negative influence on depression.

How are these divergent findings and conflicting theories explained? This divergence can be explained by the assumption that retirees are a heterogeneous group of individuals who differ in their experience of retirement and psychological consequences of retirement. It appears that while the majority of retirees experience increases in psychological health, a substantial minority of individuals do experience declines in psychological health during retirement. In fact, research tends to report that approximately one third of retirees have difficulties adjusting to retirement. For example, in a 1965 United States Harris poll, 33 percent of retirees reported finding retirement less than satisfactory (Sheppard, 1976). Belgrave and Haug (1995) noted that 30 percent of workers have been shown to experience difficulties adjusting to retirement and decreased well-being in response to retirement. Cottrell and Atchley (1969) found that 30 percent of retirees felt that they would never get used to the change. Barfield and Morgan (1974; 1978) estimated that between 21 percent and 39 percent of retirees are dissatisfied with their retirement and Cribier (1981) reported that 25 percent of Parisian retirees failed to find retirement satisfying. In an analysis of a large longitudinal health and retirement study following over 77,000 American participants from 1992 to 2005, Dhaval, Rashad,

and Spacojevic (2007) found that in the 6 years after complete retirement, 5-16 percent of retirees reported increased difficulties with mobility and daily activities, 5-6 percent reported increased illness conditions, and 6-9 percent reported declines in mental health. These statistics suggest that a substantial number of Canadians approaching retirement can be expected to experience decreased psychological health as a consequence of retirement.

Current research has focused on investigating the factors which seem to moderate the association between retirement and well-being. Dhaval and colleagues (2007) showed that declines in well-being associated with retirement tended to operate through lifestyle changes such as decreases in physical activity and social interaction. Dhaval and colleagues suggested that resilience to retirement-related difficulties are strengthened in retirees who are married, have social support, engage in physical activity, and continue to work part-time. Marziali and Donahue (2001) found that the effects of financial stress related to involuntary retirement made it difficult for individuals to cope with this major life transition. This association was decreased in participants with higher self-reliance, available close interpersonal relationships, accommodative modes of coping, sense of internal control, and perseverance. Reitzes and Mutran (2004) found that individuals attribute different degrees of importance to their roles in life which impact their well-being during retirement. In an Australian population of 129 retirees ages 65 - 80 years old, Cognitive Hardiness (i.e., confidence in one's ability to handle change and/or social interactions, belief in one's general competence, the receipt of personal meaning from social and political activities) was the most important predictor of scores on the Depression-Happiness Scale (McGreal & Joseph, 1993), such that lower cognitive

hardiness was associated with higher depression. Pessimistic explanatory style was a secondary predictor of scores on the continuum and was positively associated with depression (Sharpley & Yardley, 1999a). There is also research suggesting that individuals go through stages in the retirement process and that these separate stages are related to psychological health (e.g., Atchley, 1976; Ekerdt, Bosse, & Levkoff, 1985; Richardson & Kilty, 1991; Gall, Evans, & Howard, 1997; Reitzes & Mutran, 2004). This list of mitigating factors in the association between retirement and psychological health is not exhaustive. It is clear that workers approach retirement with different resources in terms of what they have, what they do, and how they think, and that these differences impact their psychological health during adjustment to retirement. The goal of the present study was to explain differences in recent retirees depression scores based on individuals' modes of dealing with potential retirement stressors.

Sex Differences in Stress and Adjustment to Retirement

Sex differences appear to be a factor that impacts adjustment to retirement. North American men and women who are approaching retirement tend to differ in their work histories. Marshall, Clarke, and Ballantyne (2001) note that while occupational and retirement instability (i.e., the tendency not to stay at a stable job over time) may be somewhat of a recent phenomenon experienced by men, such instability has characterized most women's experience in the work force. Women have been found to exit and enter the work force frequently throughout their working careers due to family and care-giving responsibilities (Elman & O'Rand 1998; Moen, Robison, & Fields 1994; O'Rand, Henretta, & Krecker 1992; Pavalko & Artis 1997;). It would therefore be reasonable to

assume that men and women may differ in how retirement impacts their perceived loss of work-related resources, and associated psychological-health consequences.

Men and women also seem to differ in the factors that moderate psychological health in retirement. For example, Quick & Moen (1998) found that well-being in retired women was associated with health, having had a stable full-time position, early and anticipated retirement, and increased financial income. Well-being in retired men was associated with health, enjoying their last job before retirement, having a less salient work-role, having planned their retirement, and having an internally motivated retirement.

Men and women have also been found to differ in their adjustments to retirement. Several studies have revealed that women have more difficulty adjusting to retirement (e.g., Quick & Moen, 1998; Richardson & Kilty, 1991; Szinovacz & Washo, 1992; van Solinge & Henkens, 2005) and experience lower levels of retirement satisfaction than men (Calasanti, 1996; Seccombe & Lee, 1986). These sex differences in the association between retirement and psychological health suggest that men and women are separate populations with important differences. Research on psychological health during retirement adjustment should consider these differences rather than treating men and women as homogeneous populations. Research findings of the sex differences for the measures employed in the present study are described in subsequent sections and guide the hypotheses for the present study.

The goal for the remainder of the introduction is to provide a rationale for and a description of the objectives and methodology employed in the present study. First, this introduction examines the roles of coping strategies, goal adjustment strategies, and

personal control components in predicting depression. Second, sex differences in each of these domains are discussed. Third, hypotheses are provided and the study design is discussed.

Coping

A goal for the present study was to examine what makes some individuals more resilient to distress caused by the potential stressors of retirement. Coping can be defined as the cognitive and behavioural strategies that individuals employ during stressful circumstances to restore their psychological or emotional stability (Folkman & Lazarus, 1980) and is one of the most widely examined topics in psychology research (Folkman & Mascowitz, 2000; Hobfoll, Schwarzer, & Chon, 1998; Lazarus, 1993; Penley, Tomaka, & Wiebe, 2002; Skinner, Edge, Altman, & Sherwood, 2003; Somerfield & McCrae, 2000; Zeidner & Saklofske, 1996; Zuckerma & Gagné, 2003). As coping strategy use is considered to be a process central to the management of stress and the process of adaptation to developmental challenges (Brandstadter & Renner, 1990; Heckhausen & Schulz, 1995), it is appropriate for differentiating individuals based on how they adapt to the potential stressors of retirement. Coping strategies have been frequently associated with measures of psychological health in various populations and across different stressful contexts. For example, effective use of coping during stressful events has been shown to increase psychological resilience to negative events (DeNeve & Cooper, 1998; Pearlin, 1999). It was therefore expected that coping strategy use would predict depressive symptoms in recently retired individuals.

A variety of measures have been developed to assess coping. One difference between measures pertains to whether coping is measured situationally or dispositionally. Situational approaches to coping measure how individuals' coping strategy use differs

across different stressful contexts. Situational coping has been assessed via self-reported checklists of retrospective coping in specific stressful contexts (Oakland & Ostell, 1996), and through participants' daily use of self-report diaries (e.g., Paty, Porter, & Cruise, 1998; Smith, Leffingwell, & Ptacek., 1999; Tennen, Affleck, Armeli, & Carney, 2000; Todd, Tennen, Armeli, & Affleck, 2004). Dispositional approaches to coping tend to conceive of individuals as having a repertoire of more stable coping strategies which they use repeatedly in various contexts (Carver, Scheier, & Weintraub, 1989). Thus, a researcher with a dispositional approach to coping may attempt to determine how characteristic coping responses are predictive of various outcomes such as adjustment to developmental challenges. Dispositional coping is generally measured via questionnaires asking participants how they typically respond to stress. Various studies have demonstrated that differences in typical responses to stress can predict adjustment to developmental events (Brandtstädter, Wentura, & Greve, 1993; Schmitz, Saile, & Nilges, 1996; Wrosch, Heckhausen, Lachman, 2000). Some coping models incorporate both the changing or dynamic nature of coping, as well as its dispositional nature (Carver & Scheier, 1994; Holahan & Moos, 1987; McCrae, 1989; Terry, 1994; Zautra, Sheets, & Sandler, 1996).

Coping strategies are categorized differently by different theorists. For example, it is suggested that coping strategies can be categorized as either problem-focused or emotion-focused coping (Folkman & Lazurus, 1980; Lazurus, 1996). In this categorization scheme, problem-focused coping strategies include those aimed at modifying the sources of stress, whereas emotion-focused strategies include efforts aimed at modifying internal, emotional responses to the stressful event (Lazarus & Folkman,

1984, p. 150). Other dichotomous methods to categorize coping include engagement versus disengagement strategies (Compas, Connor-Smith, Saltzman, Thomsen, & Wadsworth, 2001; Connor-Smith & Flachsbart, 2007), control versus escape strategies (Latack & Havlovic, 1992) and approach versus avoidance strategies (Roth & Cohen, 1986). Dichotomous or unidimensional modes for categorizing coping strategies have been criticized for their inability to consider adequately the multi-dimensional nature of coping as well as for suggesting that coping strategies can be classified into mutually exclusive functions (e.g., Skinner et al., 2003). In addition, dichotomous categorization schemes do not acknowledge useful differences between the different coping strategies caught within the large umbrella terms. In support of this critique, confirmatory factor analyses have revealed that strategies classified as emotion-focused have varying objectives such as i) regulating emotions, ii) coordinating actions and contingencies in the environment, and iii) coordinating social resources (Aldwin & Revenson, 1987; Folkman & Lazurus, 1985, 1986; Parkes, 1984; Skinner, Edge, Altman, & Sherwood, 2003).

Research on coping techniques has yielded numerous classification schemes for coping. In a review of the coping literature, Skinner and colleagues (2003) found over 400 types of coping, over 100 schemes for categorizing coping strategies, and numerous scales for examining the more common modes of classification. Notably, confirmatory factor analyses could not find a classification scheme for coping strategies that was sufficiently reflective of the actual structure of coping (e.g., Ayers, Sandier, West & Roosa, 1996; Connor-Smith, Compas, Wadsworth, Thomsen, & Saltzman, 2000). While

perhaps not exhaustive of all the different coping behaviours that people use, coping scales have been successful at discriminating among outcomes.

One of the more popular coping classification schemes was generated from the COPE inventory that was developed by Carver, Scheier, and Weintraub (1989). It considers the multi-dimensional nature of coping and can be employed to measure coping either situationally or dispositionally. The COPE examines the extent to which participants use thirteen conceptually distinct types of coping which will be referred to as sub-factors. They are i) active coping, ii) planning, iii) suppression of competing activities, iv) restraint coping, v) seeking social support for instrumental reasons, vi) seeking social support for emotional reasons, vii) focusing on and venting emotions, viii) behavioural disengagement, ix) mental disengagement, x) positive reinterpretation and growth, xi) denial, xii) acceptance, and xiii) turning to religion. These thirteen subscales are composed of 52 items and load onto four higher-order coping factors called Problem-Focused coping, Emotion-Focused coping, Social Support Seeking, and Avoidance. Of note, Carver and colleagues included a 14^{th} scale in their measure, Alcohol and Drug use, for experimental purposes. This scale did not belong statistically to any of the higher order sub-factors.

Construction of this measure went through several phases of revision and the final item set was tested on 978 undergraduate students at the University of Miami in group sessions. Responses were subjected to principal-factors factor analysis using an oblique rotation. Results yielded 12 lower-order coping styles with eigenvalues greater than 1.0 and the remaining factor had no item loadings that exceeded .30. Slight problems with the scale involved the fact that Active coping and Planning loaded together on one sub-

factor, as did the two social support sub-factors. Also, Mental Disengagement and Positive Reinterpretation sub-factors had item loadings below .30. Cronbach's alpha reliability coefficients were computed for each sub-factor. In general, alphas were acceptably above .6 with the exception of Mental Disengagement. Carver et al. (1989) explain that the lower reliability coefficient for Mental Disengagement can be explained by the fact that unlike other sub-factors, Mental Disengagement has a multiple-act criterion, that is, the items composing the subfactor ask the extent to which participants do different behaviours. Several studies have confirmed both the four higher-order coping factors and the 14 subscales measured in the COPE (e.g., Clark, Bormann, Crapanzano, & James, 1995; Cook & Heppner, 1997; Zautra, Sheets, & Sandler, 1996).

Dalton (2005) modified the dispositional COPE (Carver et al., 1989) and confirmed it with factor analysis on a sample of 289 male and female older adults demographically similar to the present study's sample. To modify the COPE, Dalton made changes based on Carver and colleagues (1989) suggestions and based on the Brief COPE (Carver, 1997) which is a modified version of the COPE composed of 16 subscales with two items per subscale. In her modified dispositional coping scale, Dalton did not include the Alcohol and Drug use subscales in further analyses because items from this scale were rarely endorsed by participants. This subscale was therefore not included in the final version of the questionnaire to be used in this study. Self-Blame and Restraint subscales, from the brief COPE, were minimally correlated with other subscales in the COPE and were therefore also excluded from the final questionnaire. Some items were modified based on Carver's (1997) suggestions. Dalton's resulting questionnaire included 13 types of coping, each composed of four items. Sub-factors loaded onto the four distinct higher

order factors. The Reinterpretation subscale, hypothesized to load onto the Emotion-Focused coping factor, was later removed from the model due to poor fit. The final four higher-order coping factors and their composite coping subscales were as follows: Problem-Focused Coping was composed of Active Coping, Planning, Suppression of Competing Activities and Instrumental Support Seeking subscales; Emotion-Focused Coping was composed of Acceptance, Humour, and Religion subscales; Social Support Seeking was composed of Instrumental Support Seeking, Emotional Support Seeking, and Venting subscales; and finally Avoidance Coping was composed of Behavioural Disengagement, Mental Disengagement, and Denial subscales. Each of the subscales had acceptable internal reliability with Cronbach alphas ranging from .66 to .95 for older adults. Dalton's modified four-factor COPE model was found to have acceptable fit indices when analyzed with a confirmatory factor analysis: Chi square = 103.62, $df = 46$, $p = .001$, $CFI = .94$, $NNFI = .92$, $RMSEA = .07$. Dalton's modified dispositional coping scale was employed to measure coping in the present sample.

Coping Strategies and Psychological Health in Retirement

Over the last two decades, a wealth of information has been gathered using coping techniques to predict various outcomes. Importantly, no coping strategies are considered to be universally beneficial or detrimental to psychological health; rather, the relative valences of consequences associated with using different types of coping appear to be influenced by important variables, such as the particularities of the source of the stress and sample characteristics. For example, a number of studies have shown that problem-focused coping is related to positive psychological health (e.g., Aspinwall & Taylor, 1992; Glyshaw, Cohen, & Towbes, 1989; Kim, Won, Liu, Liu, & Kitanishi, 1997; Marx

& Schulze, 1991; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985) while other studies have failed to find this association between problem-focused coping and perceptions of well-being (e.g., Bolger, 1990; Carver & Scheier, 1994; Cheng, Hui, & Lam, 1999, 2000; Collins, Baum, & Singer, 1983; Endler, Parker, & Summerfeldt, 1993; Mattlin, Wethington, & Kessler, 1990; McCrae & Costa, 1986). For the most part, avoidance coping has been linked to negative psychological health outcomes (e.g., Aldwin & Revenson, 1987; Aspinwall & Taylor, 1992; Carver & Scheier; Litt, Tennen, Affleck, & Klock, 1992; Penley et al., 2002; Stanton & Snyder, 1993). Avoidance coping less frequently was predictive of positive psychological health outcomes when participants were dealing with short term stressors (e.g., Suls & Fletcher, 1985) and health problems (e.g., Levine, Warrenburp, Kerns, Schwartz, Delaney, Fontana et al., 1987). Social support seeking and emotion-focused coping have also been associated with both positive and negative psychological health outcomes. To exemplify the effect that the source of stress has on associations between coping strategy and outcomes, consider the different consequences that would result from using problem-focused coping strategies in situations where the environment is controllable, compared to using such strategies when the external stress trigger cannot be regulated. Using such techniques in the former situation would be more adaptive; whereas using the same techniques in the latter situation could prove futile. This inconsistency suggests that coping strategies are not universally optimal; but their successfulness depends on their appropriateness to a given stressful context.

A precautionary note should also be made regarding the complexity of coping research. As there are many models of coping, some models employ identical terms for

constructs that differ operationally. For example, the emotion-focused coping construct proposed by Folkman and Lazurus (1980) differs from the emotion-focused coping construct proposed by Carver and colleagues (1989). As a result, research that associates problem-focused and emotion-focused coping with various outcomes may be measuring different constructs. This is a limitation in coping research that should be considered during literature reviews.

Sex Differences in Associations between Coping and Well-Being

Various studies have noted sex differences in the frequency of use of coping styles as well as sex differences in the psychological health outcomes of coping style use. For example, when employing the COPE, Carver et al. (1989) noted sex differences in the reported use of coping strategies. Specifically, women tended to employ more of each of the three social support seeking subscales then did men. With a dual-axis model of coping measuring active versus passive and prosocial versus antisocial dimensions in two samples of students (n = 204 and n = 184), Hobfoll, Dunahoo, Ben-Porath, and Monnier (1994) found that women were more likely than men to employ pro-social coping strategies; whereas men were more likely to employ anti-social, aggressive, but less assertive coping strategies than women. Moreover, a use of both pro-social and anti-social coping strategies was more positively associated with distress for men than for women. From these findings, Hobfoll et al. postulated that compared to women, men may have a narrower range of effective coping strategies. An alternative explanation may have been that men waited to reach a higher distress threshold before employing the coping strategies. In a meta-analytical review, Tamres, Janicki, and Helgeson (2002) consistently found that compared to men, women were more likely to employ coping strategies that

involved verbal expressions, emotional support seeking, rumination, and positive self-talk. They also found some evidence for the idea that women appraise stressors with more severity than men and noted that compared to men, women reported more distress caused by personal health and caretaking stressors and engaged in more coping strategies during these situations. This meta-analysis only included samples from nonclinical populations taken from English speaking countries and was based on 50 samples which ranged in age from 7 – 18 years to 60 – 100+ years. In consideration of the literature's inconsistency in regards to defining coping constructs, coping behaviours were carefully defined and the strategies examined in the 50 studies were reclassified to the appropriate strategy type to allow for between-study consistency in the coping constructs. Findings from this study demonstrate that men and women may appraise stressors differently and may tend to employ different types of coping in different stressful contexts. It may also be true that different coping strategies are effective for men and women. In line with these interpretations, men and women in the present study are expected to differ in their use of coping strategies and to have different psychological health outcomes associated with coping strategy use. As a result, the present study considers sex when examining the retirees coping tendencies and associations between coping tendencies and depression scores.

Predictions for the associations between coping strategies and depression in retirees

Findings from previous studies suggest which coping strategies should predict psychological health in retirees. In general, research suggests that avoidance coping would be predictive of negative health outcomes for men and women adjusting to retirement. Of specific relevance, Sharpley and Yardley (1999b) found that avoidance,

denial, and other passive coping strategies were associated with depression in their sample of retirees. Similarly, Johnston (2003) found unproductive coping strategies (e.g., avoidance strategies) to hinder adjustment and to lead to depression. As well, the majority of previous research examining the associations between avoidance and psychological health outcomes consistently finds avoidance to predict negative effects. For example, in a meta-analytic review of 16 samples examining the outcomes of an escape-avoidance coping construct from the Revised Ways of Coping Questionnaire (WOC-R; Folkman & Lazarus, 1985; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986) and 10 samples examining the outcomes of avoidance as defined by the Ways of Coping Checklist (WCCL; Vitaliano et al., 1985), Penley and colleagues (2002) found that scores on both avoidance scales were negatively associated with psychological health. Samples were composed of adults above the age of 18 years. In their analyses, the authors combined conceptually similar scales in consideration of the inconsistencies of coping construct definitions. According to the view that certain coping strategies are more effective than others for retirees, and considering these previous findings, it is expected that high levels of avoidance coping in response to stress is predictive of higher depression scores in both men and women in the present study.

Findings linking social-support seeking to psychological health outcomes tend to be less consistent. For example, Sharpley and Yardley (1999b) found that family contact was not associated with negative psychological outcomes, while social contact with others was found to create stress. Ratliff-Crain and Baum (1990) suggested that women employ social support strategies to cope with stress more often than men and that women's friendships tend to be more intimate than men's. Ratliff-Crain and Baum state

that this sex-difference does not appear to lead to improvements in women's psychological health because intimate friendships can lead to stress and decreased mood as well as support (p231-232). Ratliff-Crain and Baum note that the positive and negative effects of social support tend to cancel each other out and that this is why research tends not to find clear associations between social support and psychological health outcomes. Dalton (2005) found women to employ more social-support seeking than men, and found social support seeking to be positively associated with depression scores. Considering these previous findings and accordance with the idea that certain coping strategies are more effective than others for retirees, use of social support seeking strategies would be expected not to be associated with depression scores in either men or women, due to the possibility that individuals differ in the valence of the psychological effects associated with their social support seeking.

As previously noted, studies tend to find either positive associations or no associations between problem-focused coping and psychological health outcomes. Literature also shows that use of emotion-focused coping is associated with both positive and negative psychological health outcomes. Manfredi and Pickett (1987) found that in a sample of 51 older adults over 60 years of age, participants reported that most of their sources of stress were related to loss or conflict. It turned out that adults who reported experiencing more conflict-related stress tended to employ more problem-focused coping; whereas adults who reported more loss-related stress tended to employ more emotion-focused coping strategies as measured by the Ways of Coping Checklist (WOC), developed by Folkman and Lazarus (1985). Considering that the present sample is composed of older adults who are adjusting to recent exits from the workforce and the

diminishing of related goals and resources, it would be logical to conceive of their stressors as more often related to loss than to conflict. In keeping with Manfredi and Pickett's findings, retirees in the present study would likely employ more emotion-focused coping strategies to cope with their loss-related stress. In her sample of older adults, Dalton (2005) showed that while older adults did employ both problem and emotion focused coping strategies as defined by a modified version of the COPE (Carver et al., 1989), problem-focused coping was generally unrelated to psychological health outcomes while two of three emotion-focused coping strategies (i.e., acceptance and religion) were significant predictors of depression levels. The higher-order emotion-focused coping strategy was not a significant predictor. According to the idea that certain coping strategies are more effective than others for retirees, and considering these previous findings, it would be expected that problem-focused coping strategies are unrelated to depression scores for men and women in the present study. It is also expected that emotion-focused coping is be negatively associated with depression scores, unless the trend is sub-threshold as seen in Dalton's study. These aforementioned predictions are in line with the notion that the type of coping strategy employed should predict psychological health in retirement.

Personal Control

A large body of research also shows that one's sense of control is an important predictor of adjustment to retirement both directly and indirectly (e.g., Fretz, Kluge, Ossana, Jones, & Merikangas, 1989; Hendrick, Wells, & Faletti, 1982; Kim & Moen, 2002; Mutran, Reitzes, & Fernandez, 1997; Taylor-Carter & Cook, 1995). For example, as part of their study, Kim and Moen examined the effects that changes in personal

control have on the psychological health of 458 married men and women at different stages of retirement. For both men and women, increases in personal control over two years were associated with increased morale; whereas decreases in personal control over two years were associated with increased depression scores on the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977; Roberts & Vernon, 1983). Further, research suggests that one's perception of control is implicated in the associations between coping strategies and psychological health. The following paragraphs outline the literature on perceived control and its associations with psychological health and its involvement in the associations between coping factors and psychological health.

What is meant by sense of control? In her review of the extensive literature on control, Skinner (1996) notes that there is a high degree of heterogeneity in definitions for control. Skinner analyzed over 100 terms for control, which vary by name and/or by operational definition. Moreover, she notes that hundreds of studies measuring a control construct are conducted each year, and often, the authors introduce new theories for control. Bonetti, Johnston, Rodriguez-Marin, Pastor, Martin-Aragon, Doherty et al., (2001) note that perceived control is defined differently for various theoretical frameworks such as Social Learning Theory (Rotter, 1966), Social Cognitive Theory (Bandura, 1977, 1997), the Theory of Planned Behaviour (Ajzen, 1988, 1991) and Modified Social Learning Theory (Wallston,1992). In her review, Skinner creates a framework which maps out the ways in which control is defined in the literature. This framework allows different constructs and measures of control to be compared and contrasted. She states that control constructs can be distinguished along two main

dimensions including i) whether control is measured objectively, subjectively, or is experience-based and ii) whether the agent, the means, or the ends of control are being measured.

Skinner (1996) states that two conditions must be met for one to have high subjective or objective control. First, there must be some means by which the agent can potentially have control or the agent must believe that some means exist (i.e., a view of the world as structured and responsive) and second, the individual must have or perceive access to these means (i.e., perception of the self as competent). Respectively, Skinner refers to these two components as contingency beliefs and perceived competency. The theory that an agent must perceive both of these components to feel a sense of control has been acknowledged for some time (Bandura, 1977; Gurin & Brim, 1984; Weisz, 1986) and has generally been accepted in the field. Skinner states that it is therefore surprising that several studies overlook these fundamental aspects when measuring control.

It is argued that belief that one has control is more important than actually having control when it comes to predicting adaptive functioning (Averill, 1973; Burger, 1989). Langer (1979, p. 306) states that, "Virtually all researchers studying the importance of control will agree that the effects of objectively losing or gaining control will only have psychological significance if the person recognizes (accurately or inaccurately) the gain or loss." Research has continuously demonstrated the association between differences in perception of control and adaptive behaviours and psychological health outcomes. For instance, Averill (1973) showed that when no objective control exists, a person's belief that control is available was sufficient to mobilize action and modify arousal. Subjective or perceived control has been demonstrated to be a strong predictor of several health-

related outcomes across the life-span in a variety of populations (Baltes & Baltes, 1986; Evans, Shapiro, & Lewis, 1993; Heckhausen, 1991; Kobasa, 1979; Rodin, 1986; Schulz, Heckhausen, & O'Brien, 1994; Skinner, 1996). Most importantly for this study, perceived control has been associated with depression. For example, Weisz, Southam-Gerow, and McCarty (2001) consistently found depression to be predicted by the perceived competence component of perceived control in a sample of 360 clinically referred children and adolescents. Also, several studies have found that loss of perceived control predicted negative affect and depression in both younger and older adults (Abela, Brozina, Seligman, 2004; Abela & Seligman, 2000; Abramson, Seligman, & Teasdale, 1978; Alloy & Abramson, 1979; Alloy, Abramson, Hogan, Whitehouse, Rose, Robinson et al., 2000; Seligman, 1975; Skinner, 1995, 1996). Skinner (1996) states that experience of control seems to be the one aspect of control that is unequivocally beneficial. Thus, the present study uses a measure that examines subjective control.

Employing a control measure in which the self is the agent is the theoretically logical way of establishing an association between sense of control and personal psychological health outcomes. For this reason, constructs of control are usually measured with the self as the agent (Skinner, 1996). The present study employs the measure of Personal Control (Lachman & Weaver, 1998) which measures subjective control in which the agent is the self. This measure also assesses both competency and contingency which Lachman and Weaver refer to as Personal Mastery and Perceived Constraints, respectively. Lachman and Weaver operationalize Perceived Constraints as the extent one believes that there are obstacles or factors beyond one's control which interfere with reaching goals, and they operationalize Personal Mastery as one's sense of

efficacy or effectiveness in carrying out goals. These constructs are referred to as perceived constraints and mastery for the remainder of the introduction.

Both mastery and perceived constraints appear to predict psychological health outcomes in older adults. For example, Kim and Moen (2002) followed men and women retirees over a course of two years and found that for both sexes, increases in mastery were associated with increases in moral; while decreases in mastery were associated with increases in depression scores. Lachman and Weaver (1998) showed that regardless of level of income, a high sense of control in both domains were associated with lower depression scores in approximately 3000 men and women ages 25-75 years. Consistent with these findings, it is expected that low perception of control in both control domains should predict higher depression scores in the present sample of male and female retirees.

Not only is perceived control an important predictor of psychological health, but it appears to also be implicated in one's choice of coping strategies. For example, levels of both perceived constraints and mastery have been demonstrated to predict the frequency of use of particular coping strategies both situationally and dispositionally (e.g., Blankstein, 1984; Endler, Macrodimitris, & Kocovski, 2000; Mineka & Henderson, 1985). For example, high sense of control has been shown to predict greater use of problem-focused coping and less use of emotion-focused coping strategies (Anderson, 1977; Aspinwall & Taylor, 1992; Fleishman, 1984; Endler et al., 2000; Marshall, 1991; Terry, 1994). As well, scoring high on mastery has been found to predict lower use of avoidance coping strategies (Aspinwall & Taylor, 1992; Ben-Zur, 2002; Marshall, 1991; Thompson & Spacepan, 1991). Dalton (2005) found that in her sample of older adults, a perception of fewer constraints was associated with increased use of coping strategies

that were, in turn, negatively associated with depression scores. Dalton's findings suggest that individuals' sense of control may be behind their decisions to employ more effective coping strategies. This argument is logical considering that individuals who know how to choose appropriate coping strategies may consequently experience increased levels of control, and reciprocally, individuals who believe that they have control over their outcome would likely be more careful in choosing appropriate coping strategies in times of stress.

It would be inaccurate to suggest, however, that certain coping strategies are most appropriate and that increased control simply enables effective choice of these strategies. In demonstration of this point, Dalton (2005) divided her population into four types of copers based on their degree of perceived constraints and reported use of all four higher-order coping factors and found that the associations between used coping strategies and sense of mastery differed between groups. For example, mastery was positively associated with problem-focused coping and negatively associated with avoidance for individuals in the persistent and strategic coping groups; whereas mastery was positively associated with social support seeking in the strategic coping group. In the passive group, mastery was positively associated with emotion-focused coping, but was negatively associated with social support seeking and avoidance. Her results suggested that high feelings of mastery may lead to different coping strategy choices depending on how individuals differ in their beliefs about the world and how flexible they are in their use of coping strategies. It therefore appears that high levels of control do not lead to similar types of coping in all people.

Other research shows that differences in individuals' perceptions of control moderate associations between coping strategy use and psychological health outcomes. This argument is logical considering that a sense of mastery likely affects and is affected by efficacy of coping strategy implementation. This moderation effect suggests that types of coping are not just effective in and of themselves, but the strategies' effectiveness depend to a large degree on how well the strategies are implemented. Efficacies of implementation, in turn, are reflected in individuals' feelings of control. Furthermore, a high sense of control would likely increase one's optimism in the usefulness of coping strategies and thus the effort put into effective implementation of coping strategies. This idea suggests that coping strategies themselves are not necessarily beneficial or detrimental, but that they each may be used adaptively in particular situations if chosen carefully and employed effectively. Careful choice of coping strategy use and effective implementation would likely require a belief that one's outcome is manageable and that one is competent. In keeping with this theory, Sandler and Lackey (1982) showed that individual differences in locus of control were positively associated with individuals' quality of social support received. The authors report that the stress-buffering effects of this type of coping were only present in individuals who perceived control to reside within themselves. Similarly, previous research has often found that an interaction effect between high problem-focused coping and high control is negatively associated with psychological distress (e.g., Compas, Malcarne, & Fondacaro, 1988; Conway & Terry, 1992; Forsythe & Compas, 1987; Osowiecki & Compas, 1998; Vitaliano, DeWolfe, Maiuro, Russo, & Katon, 1990). From their results, Osowiecki and Compas interpreted that problem-focused coping may be most effective in buffering against distress when it

is accompanied by a high sense of control. In keeping with the idea that a high sense of control positively impacts both the appropriate choice and efficacy of coping strategy implementation, levels of mastery and perceived constraints should moderate the associations between coping strategy use and depression scores in the present sample of retirees. More specifically, interactions between coping strategy use and personal control components should account for significant variance above and beyond the main effects of control components and coping strategies in predicting depression scores.

Depression

The present study focuses on predicting depressive symptoms in retirees as depression appears to be a major cause of emotional suffering and decreased quality of life in older adults (Blazer, 2003). Hybels, Blazer, and Pieper (2001) found that over 9% of 4,162 community-dwelling adults aged 65 or older met the CES-D criteria for Depression. Due to the suffering associated with depression, and its relatively high prevalence, a goal of the present study is to enable a better understanding of the factors which may contribute to depressive symptoms in recent retirees. The CES-D is used for this purpose. Traditionally, individuals with scores of 16 or greater on the CES-D are considered depressed.

Summary of Hypotheses

Based on previous research, the following main effects are expected. High scores in both control components should be negatively associated with depression scores for both women and men. According to the notion that certain coping strategies are more effective than others at reducing stress in retirement, avoidance coping is hypothesized to be positively associated with depression scores for both men and women; social support

seeking is expected not to be associated with men's depression scores and to be positively associated with women's depression scores; problem-focused coping should predict neither men's nor women's depression scores; and emotion-focused coping should negatively associate with depression scores for both men and women.

According to previous research suggesting that increased sense of control is associated with effective use of coping strategies, it is expected that participants' levels of control moderate the associations between use of coping strategies and depression scores to a significant degree. Specifically, high control is expected to increase the beneficial effects of coping strategy use. These interaction effects should therefore explain variance in depression scores above and beyond variance explained by the main effects of control and coping strategies.

Due to the previously described sex differences in coping, retirees' psychological health, work, and psycho-social histories, it is expected that the men and the women differ in their frequency of use of coping strategies as well as in the correlations between strategy use and depression scores. Specifically, it is hypothesized that women report a greater frequency of use of most coping strategies than men and that social-support seeking is only associated with depression scores in females.

Previous research is not available to support specific hypotheses regarding which control components moderate the associations between specific types of coping and depression scores. Nor is previous research available to suggest how these moderations may differ between sexes. The present study, therefore, is designed to not only lend support to the aforementioned theories regarding the interactions between control and coping, but results from the present study should contribute new, specific understandings

regarding how each control component and sex are implicated in the associations between coping and depression during the retirement transition.

Proposed Study

The present study included analyses designed to address the stated hypotheses. Confirmatory factor analyses, combining men and women, were completed on the two-factor model of personal control and the four-factor model of coping. Confirmatory factor analyses were conducted to confirm that participants' data fit the proposed models, to ensure that the hypothesized control and coping factors were meaningful and distinct, and to estimate participants' weighted coping and control factor scores to be used in subsequent regressions. Hierarchical regressions were then run to determine the variance in depression scores explained by control factors, coping factors, and their respective interactions. Due to the previously described sex differences in coping, retirees' psychological health, work, and psycho-social histories, it was hypothesized that the men and women should differ in their use of coping strategies as well as in their correlations between strategy use and depression scores. Regressions were therefore run separately for men and women to allow for sex-based comparisons.

Hierarchical regressions were run for several reasons. First, hierarchical regressions allow for the determination of the extent to which variance is explained by the target variables above and beyond the effects of known demographic predictors. Financial adequacy, number of illnesses, and age were controlled for in the following study as they have been frequently associated with psychological health (e.g., Quick & Moen 1998; Murphy, 1983; Gall et al., 1997; Richardson & Kilty, 1991; Aneshensel, Frerichs, & Huba, 1984) and it was important to ensure that coping and control predictors explained

variance above and beyond these demographics. It was also important to control for subjective differences in stress as coping strategies are measures employed to reduce stress (e.g., Folkman & Lazarus, 1980), resulting in a tendency for stress and coping to be correlated.

Considering that personal control has been shown a) to be directly associated with depression scores, b) to mediate the associations between coping and depression, and c) perhaps to moderate associations between coping and depression, personal control may be a more major resource for psychological health than coping. Based on this, personal control components were entered into the regression before coping factors in order to determine whether additional variance in depression was accounted for by coping factors. Interactions between coping and personal control factors were entered last to determine if hypothesized moderation effects explained variance in depression scores above and beyond the main effects of control and coping factors. Thus, it was expected that unique variance in depression would be explained by the main effects of control components, coping factors, and their interactions.

Method

Participants and Procedure

The data for this study was taken from a large four-phase longitudinal project on adjustment in retirement lead by Dr. Pushkar at Concordia University. A total of 446 men and women joined the first phase, recruited through a large provincial corporation, from retirees associations, and from advertisements in community newspapers. To avoid including participants who are heterogeneous in terms of retirement stage, and to look more specifically at retirees in the early stages of adjustment, the present study only included participants who joined Time 1 (T1) of the study within the first three years of their retirement. Criteria for entry into the large longitudinal study required 20 years of full time employment. Participants were screened to ensure that they were not currently employed for more than 10 hours per week and to ensure that they spoke either fluent English or French. Small group testing was conducted at Concordia University on four occasions, 12 months apart, and participants were compensated $50 on each visit. Questionnaires were available in both English and French versions. Variables examined in the analyses were taken from T2 testing, with the exception of age.

Of the 446 participants, at T1, 13 participants were eliminated due to difficulty understanding or following instructions, resulting in 433 participants. A total of 40 participants were then eliminated for not participating in T2 testing. Of those, 21 were not reachable or did not respond when contacted, 15 withdrew as they were busy, uninterested, or had health problems, and 4 others were eliminated due to difficulty understanding or following instructions at T2. This resulted in 393 participants. Of these, 10 women and 29 men were eliminated as they had not joined the study within three

years of their retirement. Three more women were eliminated from the sample for a variety of reasons. This left a sample of 188 women and 163 men.

At T1, participants completed a brief demographic interview, indicating their gender, age, years of education, age of retirement, occupation, financial data, marital status, and number of people with whom they lived. The women who were retained were between 44 and 75 years (M = 58.8, SD = 5.2) at T1. The men who were retained were between the ages of 50 and 79 years (M = 59.37, SD = 5.2) at T1. The sample was generally well educated. Men had completed an average of 15 years of education (SD = 2.68, range = 7 – 21 years) and women had also completed an average of 15 years of education (SD = 2.45, range 9 – 21 years). At T2, 66 women were married, 40 were single, 47 were divorced, 12 were widowed, 20 were common-law, and 3 women did not respond. Also at T2, 106 men were married, 11 were single, 12 were divorced, 23 were common-law, and seven men did not respond. Women and men were employed for a mean number of 34.16 years (SD = 7.09) and 35.28 years (SD = 6.51), respectively. Of the 188 women retained at T2, 8 retired in 2002, 65 in 2003, 67 in 2004, and 48 in 2005. Of the 163 men retained at T2, 4 retired in 2002, 60 in 2003, 67 in 2004 and 32 in 2005.

Measures

Participants completed a battery of questionnaires at home or in the lab. Only questionnaires relevant to the present study are described. All relevant questionnaires are included in Appendix A.

Financial Adequacy. To assess participants' perception of the adequacy of their financial status compared to people of the same age, participants completed a Tri-Form rating scale (Pushkar, Arbuckle, Rousseau & Bourque, 2003) which was included in the

demographic questionnaire. On this one-item, seven-point scale, participants rated their perceived adequacy of financial status compared to same-age people. Higher scores indicated better financial status.

Health. Health was assessed via a modified version of the Seriousness of Illness Rating Scale (Wyler, Masuda & Holmes, 1971), using a shortened version eliminating items that were unlikely to occur in older samples. Participants were required to indicate from a broad range of physical and mental illnesses those that they had been diagnosed as having. A total score consisting of the number of reported illnesses was tabulated for each participant. Test-retest reliability has been found to be 0.71 across three years for an older sample (Gold, Andres, Etezadi, Arbuckle, Schwartzman, & Chaikelson, 1995).

Subjective Stress. To measure participants' subjective stress, a novel 9-point Stress Measure was devised based on Schonfield's (1973) 9-point, likert-type tri-scales. In this subjective stress measure, participants were told that people who have no stress in their lives (i.e., not at all stressed) are rated as one, whereas people who experience an enormous amount of stress (i.e., extremely stressed) are rated as nine. Participants were asked to mark an X on the scale where they would put themselves. The measure also asks participants to mark an O on the scale where they would put people of their own age in general and to mark a B on the scale for where they would put themselves during the time they felt the least stressed. Only responses to the first question were examined in the present study.

Personal Control. The Personal Control scale (PC; Lachman & Weaver, 1998) was used to measure participants' scores for Mastery and Perceived Constraints. The PC is composed of 12 items, seven of which were taken from Pearlin and Schooler (1978),

while the remaining five items were developed by Lachman and Weaver. Four of twelve items compose the Mastery subscale and the remaining eight compose the Perceived Constraints subscale. Mastery items are positively worded while Perceived Constraints items are negatively worded. On this inventory, participants are asked to rate, on a 7-point Likert-type scale, the degree to which they agree with 12 commonly held opinions. The endpoints are "Disagree Strongly" (1) and "Agree Strongly" (7). A sample Mastery question was, "I can do just about anything I really set my mind to" while a sample perceived constraints question was, "I have little control over the things that happen to me." Lachman and Weaver found internal consistency of these subscales to be good with coefficient alphas of $\alpha = .70$ for Personal Mastery and $\alpha = .86$ for Perceived Constraints. Perceived Constraints items were reverse coded so that high scores on both subscales refer to high control in the domains. As a result, the perceived control construct will be referred to as outcome control in order to reflect this positive orientation in the present study. Participants' mastery and outcome control factor scores were estimated via regressions in which participants' composite item scores, multiplied by their respective beta weights, were summed. Beta weights were taken from the factor loadings produced by a confirmatory factor analysis on the two-factor model of Personal Control.

Dispositional Coping. To assess how the participants typically respond to stress, participants were administered a coping questionnaire using a dispositional format. This questionnaire was adapted from the dispositional coping inventory (COPE; Carver et al., 1989) as a result of factor analysis completed with an older adult sample (Dalton, 2005) demographically similar to the sample in the present study. This dispositional coping scale was composed of the high loading questions from each subscale and the result was

a questionnaire composed of 52 items. As mentioned in the introduction section, only 48 of the 52 items were used to compose the 12 coping subfactors employed in the present study. Each item asks participants to indicate the degree to which they typically employ a particular coping strategy. On this inventory, participants are asked to rate, on a 4-point Likert-type scale the degree to which they typically employ each of the 52 coping strategies listed. Scale endpoints are "I usually don't do this at all" (1) and "I usually do this a lot" (4). Sample questions include, "I think about how best to handle the problem" and, "I refuse to believe that it has happened." Forty-seven of the 52 items load onto the 12 subscales included in the present study's analyses, while the five remaining items were not used to contribute to the subfactor scores. Each subscale is composed of four items and one item is used to compose two subscales. In turn, the 12 subscales load onto four higher-order coping factors. Higher order factors and their composite subscales are as follows: Problem-Focused coping is composed of Active Coping, Planning, and Suppression of Competing Activities. Emotion-Focused coping is composed of Acceptance, Turning to Religion, and Humour. Social Support Seeking is composed of Venting of Emotions, Instrumental Support, and Emotional Support. Avoidance Coping is composed of Behavioural Disengagement, Mental Disengagement, and Denial. Dalton showed that each subscale had acceptable internal reliability with Cronbach alphas ranging from .66 to .95 for older adults. In the present study, participants' lower-order coping subscale scores were generated from the means of their composite items. The higher-order coping factor scores were estimated via regressions in which the composite subscale scores, multiplied by their respective beta weights, were summed. Beta weights

were taken from the factor loadings produced by a confirmatory factor analysis on the four-factor model of coping.

Depression. Depression was measured using the CES-D (Radloff, 1977; Roberts & Vernon, 1983). On a 4-point scale, participants were asked to note the degree to which they experienced feelings of sadness or depressive symptoms during the past week. Endpoints are "rarely or none of the time; less than 1 day" (0) and "Most or all of the time; 5-7 days" (3). This scale is composed of 20 items which comprise four symptom clusters, or depression subscales, including depressed mood, psychomotor retardation, well-being, and interpersonal difficulties. Depression subscales were calculated from the means of the items which compose them. Items composing the third depression subscale were reverse coded to reflect a negative orientation. Scores from the four depression subscales were then summed to form an overall depression score for each individual. Criterion validity has been shown to be satisfactory in an older adult sample demographically similar to the present study's sample ($\alpha = .73$; Dalton, 2005).

Statistical Analyses

First, confirmatory factor analyses were conducted for the four-factor model of coping (Carver et al., 1989; Dalton, 2005) and for the two-factor model of personal control (Lachman & Weaver, 1998). Second, hierarchical regressions were run for each sex to predict scores on the CES-D. The hierarchical regressions were completed in five steps: in Step 1 demographic variables were entered; in Step 2, the subjective stress variable was entered; in Step 3, mastery and outcome control factors were entered; in Step 4, the four higher-order coping factors were included; and in Step 5, interactions between coping and control factors were included.

Results

The results are presented in three separate sections. The first section presents the data screening procedures. The second section presents results from confirmatory factor analyses to assess factor structures of the independent variables on the present sample. EQS software (Bentler, 1989) was used for this purpose. Results from this section help guide the interpretation of findings from section three. The third section presents the hierarchical regression models used to predict the depression scores in male and female retirees. SPSS software was used for this procedure.

Data Screening

The data was screened for missing items. For women, one participant did not include two items in the dispositional coping scale (Carver et al., 1989; Dalton 2005). Specifically, the participant omitted one of four items used to compose the Instrumental Support subscale and one of four items used to compose the Denial subscale. In these cases, the individual's scores for the Instrumental Support and Denial subscales were composed from the means for the remaining items. Four men were eliminated from the present study for not completing various scales that were important to the present study. This resulted in a total of 159 male participants.

Independent sample *t*-tests were conducted to determine how deleted cases differed from the sample in the present study on demographic variables at T1. Participants were dummy coded and independent sample *t*-tests were conducted separately for women and men. There were no significant differences for women on age $t(207) = -.418, p > .05$; financial adequacy $t(205) = -1.867, p > .05$; or number of illnesses

$t(207) = .022, p > .05$ or for men on age $t(22), = -.917, p > .05$; financial adequacy $t(176) = 1.589, p > .05$; or number of illnesses $t(1,176) = -.190, p > .05$.

All variables were correlated and all item sets were correlated to scan for multicollinearity and singularity. There was no evidence of multicollinearity or singularity for either male or female samples.

Data was then screened for outliers. The scores for univariate outliers were reduced to 3 standard deviations above or below the mean. If only a few participants required an adjustment on a particular score, then their scores were reduced to exactly three standard deviations from the mean. To avoid creating a false mode, if more than three participants' scores required adjustments for a particular variable, then scores were reduced to the mean proportionally. Adjustments made to women's scores were as follows. Three depression scores were reduced to 31.98; one score for age was reduced to 74.49; two number of illness scores were reduced to 14.78, three mastery scores were increased to -5.95; one problem-focused coping score was increased to -6.0; and two avoidance coping scores were reduced to 4.14. No adjustments were required to financial adequacy, stress, outcome control, social-support seeking, or emotion-focused coping.

Men's outlier scores were reduced to 3 standard deviations as follows. Three depression scores were reduced to 26.48; four age scores were reduced proportionally to between 72 and 74.93; four number of illness scores were reduced proportionally to between 12.5 and 14.16; two stress scores were reduced to 7.96; one mastery score was increased to -5.72; two outcome control scores were increased to -8.32; two avoidance scores were reduced to 4.38; and one emotion-focused coping score was reduced to 2.49.

No adjustments were required to financial adequacy, problem-focused coping, or social support seeking.

After the reduction of outliers, variables' descriptive statistics were again analyzed to ensure sufficient normality. *Z*-scores were produced for each variable by dividing the skew by its standard error and the kurtosis by its standard error. Most variables were adequately normal. Some variables, however, required transformation. Specifically, women's depression distribution had z-scores for skew and kurtosis of 8.47 and 5.16, respectively. Men's depression distribution had *z*-scores for skew and kurtosis of 5.76 and 2.51, respectively. Women's distribution for number of illnesses had *z*-scores of 6.94 and 4.42 for skew and kurtosis, respectively. Men's distribution for number of illnesses had *z*-scores of 7.26 and 5.321 for skew and kurtosis, respectively. Square root transformations were completed on these variables and the resulting distributions were adequately normal. These transformed variable scores were employed in subsequent hierarchical regressions.

Table 1 presents the means and standard deviations for participants' scores for demographics, subjective stress, and depression. Descriptive statistics reflect participants' scores after the alteration of outlier scores, after the elimination of participants with missing data, and prior to the transformation of the aforementioned four variables. Independent sample *t*-tests were run to examine sex differences in variable scores. Asterisks in Table 1 reflect statistically significant sex differences. Specifically, men reported significantly fewer illnesses $t(345) = -3.459$, $p = .001$, Cohen's $d = -0.37$; greater financial adequacy $t(345), = 2.980$, $p < .01$, Cohen's $d = 0.32$; and lower subjective stress $t(345) = -4.033$, $p < .001$, Cohen's $d = -0.43$ than did women. Men and women did not

Table 1

Variables' Descriptive Statistics

	Women			Men		
Variables	Range	Mean	SD	Range	Mean	SD
Number of Illnesses***	0-14.78	4.36	3.47	0-14.16	3.30	3.11
Age	44-75	58.83	5.22	50-74.93	59.28	4.95
Financial Adequacy**	1-7	4.55	1.30	2-7	4.96	1.23
Perceived Stress***	1-9	4.19	1.63	1-7.96	3.52	1.48
Depression	0-31.98	7.32	7.44	0-26.48	7.44	6.08

N = 188 women, N = 159 men, * $p < .05$, ** $p < .01$, *** $p < .001$

Note. SD refers to Standard Deviation.

differ in age $t(345) = .811, p > .05$ or in CES-D score $t(345) = .851\ p > .05$.

Confirmatory Factor Analyses

Confirmatory factor analyses were employed to examine the factor structures of Personal Control and Disposition Coping models in male and female retirees. Indices from the Maximum Likelihood Estimation are presented where multivariate distributions were normal. Nonnormal fit indices are presented for measures with variables distributions that diverge from normality. As increases in sample size lead to significant chi-squared tests with only small differences between the model and the data (Tabachnick & Fidell, 2007), alternative fit indices are also presented to guide interpretation.

Confirmatory factor analyses were conducted for men and women combined on the model for personal control (Lachman and Weaver, 1998). This model requires that personal control be composed of two distinct components, mastery and outcome control. There were no a priori reasons to fix any of the pathways, therefore the factors were fixed to 1.00 and all the pathways were freed. The models were initially run without extra pathways. Mardia's Normalized Estimate (31.0982) suggested a problem with normality, thus robust analyses were conducted. The initial model, without added pathways, did not provide a good fit to the data: Satorra-Bentler Scaled Chi- Square = 150.74, $p < .001$, $df = 53$, $CFI = .883$, $RMSEA = .073$. Pathways correlating variable error within the same factors were added individually. Six pathways correlating error within the same factors were added and the goodness of fit indices were as follows: Satorra-Bentler Scaled Chi-Square = 68.28, $df = 47$, $p < .05$, $RMSEA = .036$. The sample size of this study ($N = 347$) was above the 100 respondents threshold and therefore additional fit indices were

employed: *NFI* = .924; *CFI* = .974. These fit indices were above the .90 threshold, supporting the measurement model's fit with the structural model. The normed Chi-Square estimate (i.e., the ratio of Chi-Square to degrees of freedom) was 1.45 which suggested that the model has an acceptable fit for the data. The recommended level of the normed Chi-Square is generally between 1.0 and 2.0 in order to indicate a good fit; however some experts accept values between 2.0 and 5.0 as suggesting adequate fit. Figure 1 presents the model for Personal Control established with both sexes.

Confirmatory factor analyses were also conducted to assess the four-factor model of coping (Carver et al., 1989; Dalton, 2005). Certain items were expected to cross load moderately on various subscales (Carver et al). Specifically, Instrumental Support Seeking was expected to cross-load on the Problem-Focused coping factor and Venting of Emotion was expected to cross-load on the Avoidance Coping factor (Carver et al.; Dalton). When including these cross loadings, Dalton concluded that the model established on both sexes had an adequate fit to her older adult population: Chi Square = 103.62, p =.001, df = 46, N = 289, *CFI* = .94, *NNFI* = .92, *RMSEA* = .07, normed Chi-Square estimate = 2.25.

Confirmatory factor analyses were conducted to assess the four-factor model of coping with the present sample combining men and women. The Maximum Likelihood Estimate statistics were taken because the variables' data distributions appeared to be close to normal with a Mardia's normalized estimate of 7.0095. The initial model tested involved only pathways drawn between the higher-order factors and each of their proposed three coping sub-factors. The pathways to Active Coping, to Emotional Support

Seeking, to Behavioural Disengagement, and to Acceptance were fixed to 1.00 as they have been to Acceptance were fixed to 1.00 as they have been shown to have the highest

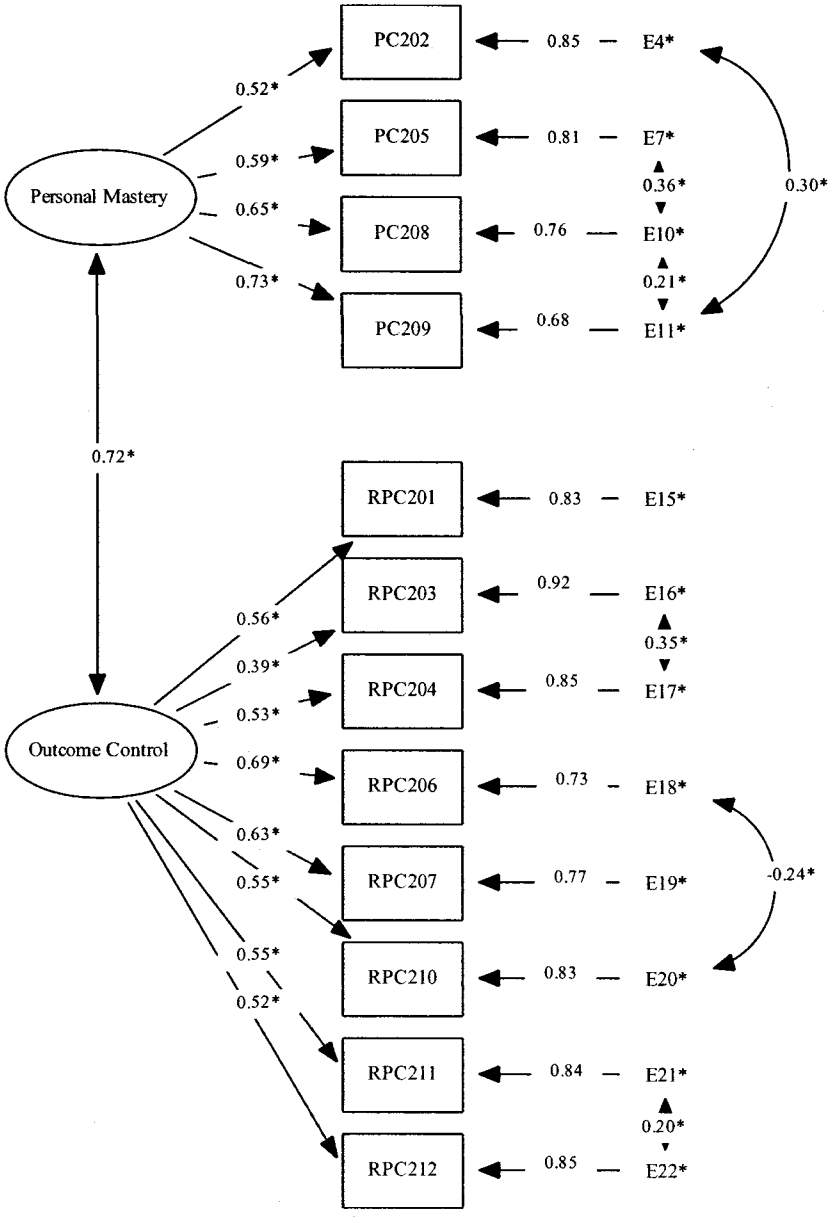


Figure 1. Confirmatory factor analysis for the two-factor model of personal control for men and women. The variables beginning with PC for Perceived Control represent items from the Perceived Control scale. The variables beginning with RPC represent items from the Perceived Control scale that were reverse coded. Satorra-Bentler Scaled Chi-

Square = 68.28; $df = 47$; $p < .05$; $NFI = .924$; $CFI = .974$; $RMSEA = .036$. $N = 347$. All pathways were statistically significant.

loadings to Acceptance were fixed to 1.00 as they have been shown to have the highest loadings on the factors to which they belong in a sample demographically similar to the present study's sample (Dalton, 2005). All other pathways and the factors were freed. This model did not fit the data: Chi-Square = 220.90, $df = 48$, $p < .001$, $CFI = .86$, RMSEA = .10. Next, the two theorized cross loadings (1) Instrumental Support Seeking loading on Problem-Focused Coping and (2) Venting of Emotions loading on Avoidance Coping were found to be significant and were added to the model. The model was still not a good fit for the data: Chi-Square = 157.94, $df = 46$, $p < .001$, $CFI = .91$; $RMSEA = .084$. Next, pathways statistically expected to account for variance were added. Specifically, Religion and Behavioural Disengagement subscales were shown statistically to load onto Social Support Seeking and therefore these pathways were added and the model was run. Results showed the following marginal fit indices: Chi-Square = 107.13; $df = 44$, $p < .001$, $RMSEA = .06$. Considering the large number of participants, additional fit indices were employed ($NFI = .920$; $CFI = .95$) which were above the .90 threshold, supporting the measurement model fit with the structural model. The ratio of Chi-Square to degrees of freedom was 2.43 which also suggested an acceptable, but not great fit. Notably, the pathway correlating the Emotion-Focused Coping and Social Support Seeking factors and the pathway drawn between Emotional Support Seeking and its error were not statistically significant.

Figure 2 presents the model for dispositional coping established with both sexes. The output showed that by adding a few more pathways, small amounts of variance could

be accounted for. Further pathways were not added for the following theoretical reasons. First, having too many pathways with the present study's number of participants is not

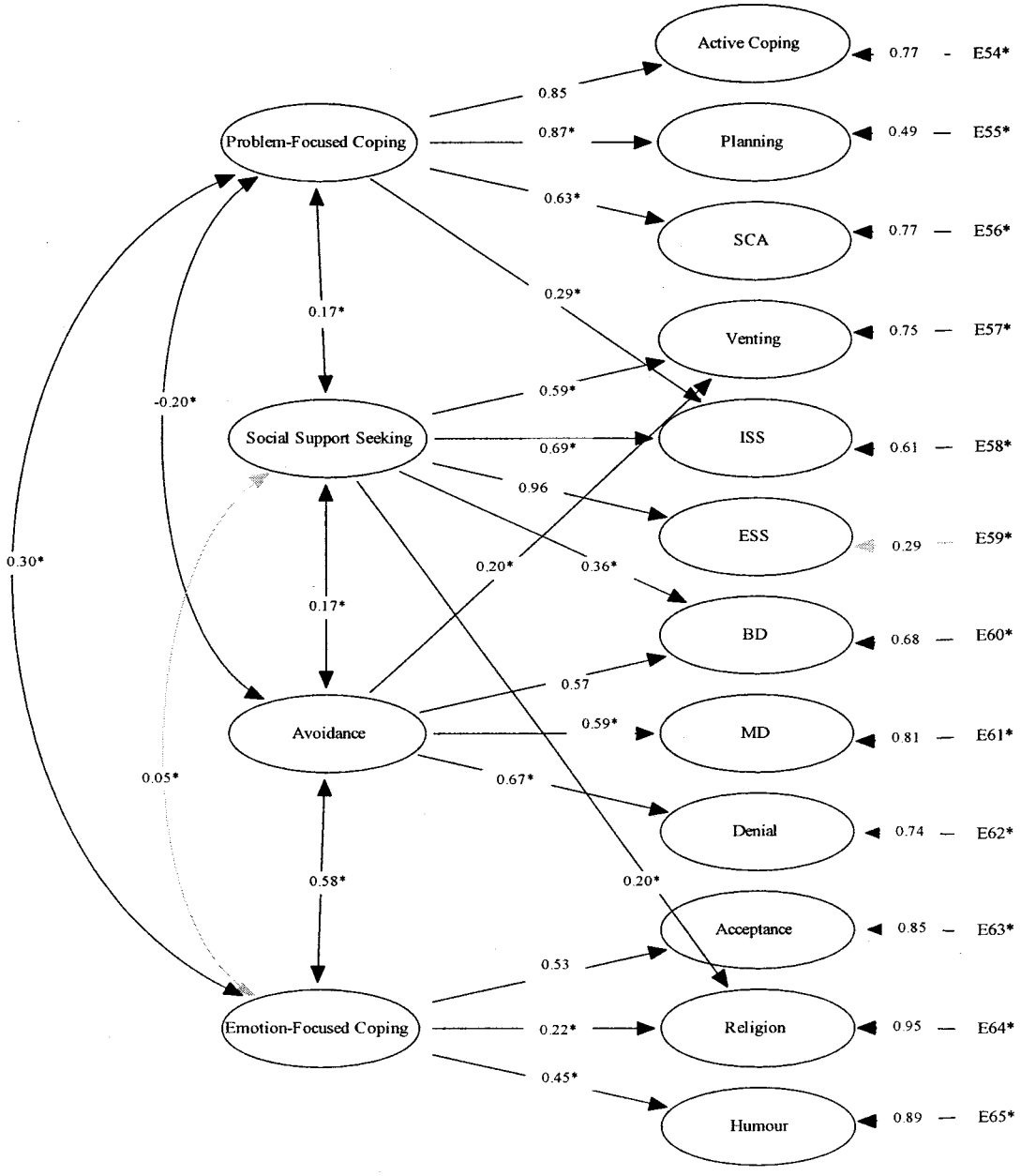


Figure 2. Confirmatory factor analysis for the four-factor model of coping for men and women. SCA = Suppression of Competing Activities; ISS = Instrumental Support Seeking; ESS = Emotional Support Seeking; BD = Behavioural Disengagement; MD = Mental Disengagement. Chi-Square = 107.13; $df = 44$; $p < .001$; *NFI* = .920; *CFI* = .95; *RMSEA* = .06. $N = 347$. Non-significant pathways are marked with grey lines.

recommended. Second, adding these other pathways would cause the model to diverge more strongly from the dispositional coping model employed in previous studies.

Estimating Factor Scores

Participants' factor scores for the four higher order types of coping and personal control components were estimated based on the results from the confirmatory factor analyses and were generated with SPSS software. Factor scores for personal control components were estimated for each participant from the sums of participants' standardized item scores multiplied by their appropriate beta weights. The factor loadings established via the confirmatory factor analyses were used as the beta weights. The means of participant's coping item scores were used to produce coping subfactor scores. Participants' coping factor scores were then estimated from the sum of standardized coping subfactor scores multiplied by appropriate beta weights. Again, loadings from the confirmatory factor analysis were used as beta weights. Although the four-factor coping model required four additional pathways for the model to fit the data, these additional loadings were not included in the generation of factor scores for two main reasons. First, generating the factors from only the theoretically determined variables allow generated factors to be consistent with those in previous research. Second, these additional factor composites were excluded to avoid singularity in coping factors. The correlations that occurred between coping subfactors were addressed in the regressions.

Descriptive statistics for the estimated factor scores are presented in Table 2. An intercorrelation matrix of all variables employed in the analyses, including the factor

scores, is available in Appendix B. Independent sample *t*-tests were run to examine sex differences in factor scores; however there were no significant sex differences in

Table 2

Factor Scores' Descriptive Statistics

	Women			Men		
Variables	Range	Mean	SD	Range	Mean	SD
Mastery	-6.81 – 2.18	-.019	1.94	-5.72 – 2.22	.009	1.88
Outcome Control	-7.71 – 3.85	.000	2.85	-8.32 – 3.92	.021	2.70
Problem-Focused Coping	-7.18 – 3.25	.000	2.00	-5.42 – 3.41	.000	2.08
Emotion-Focused Coping	-1.68 – 2.29	.015	0.83	-1.70 – 2.49	.000	0.83
Social Support Seeking	-5.21 – 3.28	.000	1.94	-3.81 – 4.27	.000	1.85
Avoidance	-2.44 – 4.14	-.010	1.34	-2.35 – 4.49	.035	1.48

N = 188 women, N = 159 men

Note. SD refers to Standard Deviation. There were no significant sex differences between factor scores.

endorsement of control or coping factors: mastery $t(345) = .136, p > .05$; outcome control $t(345) = .070, p > .05$; problem-focused coping $t(345) = .000, p > .05$; social support seeking $t(345) = .000, p > .05$; avoidance $t(345) = .294, p > .05$; and emotion-focused coping $t(345) = -.168, p > .05$. Notably, independent sample *t*-tests were also run to examine sex differences in the use of coping subfactors. Compared to the men, the women reported a greater use of several of the coping subfactors including planning $t(345) = -2.544, p < .05$, Cohen's $d = -0.27$; venting of emotions $t(343) = -6.458, p < .001$, Cohen's $d = -0.70$; instrumental social support $t(345) = -3.854, p < .001$, Cohen's $d = -0.41$; emotional support $t(345) = -6.226, p < .001$, Cohen's $d = -0.67$; behavioural disengagement $t(345) = -2.915, p < .01$, Cohen's $d = -0.31$; mental disengagement $t(345) = -4.471, p < .001$, Cohen's $d = -0.48$; and religion $t(345) = -4.808, p < .001$, Cohen's $d = -0.52$. The men and women showed no differences on the remaining subfactors. See Appendix B for descriptive statistics on the subfactor scores. Factor score distributions were also assessed to ensure that their skew and kurtosis were within acceptable ranges. Women's mastery factor score had a *z*-score for skew outside of the acceptable range and therefore this factor underwent a square root transformation. After the transformation, the distribution was even farther from normality. Therefore the original mastery factor scores were employed in subsequent analyses. The other factor score distributions had acceptable *z*-scores for skew and kurtosis.

Hierarchical Regression Models

All variables employed in the hierarchical regressions were standardized or created from standardized scores. Hierarchical regressions were completed in five steps and were completed separately for each sex. Demographic variables were entered into the

Table 3

Summary of Hierarchical Regression Analysis for Variables Predicting Women's Depression Scores

Variable	*B*	*SE B*	β	ΔR^2
Step 1				.078**
Age	-.082	.102	-.059	
Subjective Financial Situation	-.111	.103	-.080	
Square root of Illnesses	.354	.100	.254***	
Step 2				.259***
Stress	.733	.087	.526***	
Step 3				.141***
Mastery	-.109	.045	-.151*	
Outcome Control	-.164	.035	-.336***	
Step 4				.038**
Problem-Focused Coping	-.002	.039	-.002	
Emotion-Focused Coping	-.275	.104	-.164**	
Social Support Seeking	. 024	.041	.033	
Avoidance Coping	.207	.067	.200**	
Step 5				.033
Problem-Focused Coping by Mastery	.044	.024	.126	
Emotion-Focused Coping by Mastery	-.122	.060	-.160*	
Social Support Seeking by Mastery	-.027	.026	-.069	
Avoidance Coping by Mastery	.015	.038	.029	
Problem-Focused Coping by Outcome Control	-.031	.019	-.109	
Emotion-Focused Coping by Outcome Control	.118	.048	.183*	
Social Support Seeking by Outcome Control	.036	.017	.143*	
Avoidance Coping by Outcome Control	-.066	.028	-.182*	

Adjusted $R^2 = .500$; $F\ (187) = 11.405$, $p < .001$, $N = 188$, * $p < .05$, ** $p < .01$, *** $p < .001$. *Note.* Number of Illnesses lost significance in step 3 and Mastery lost significance in step 4.

Table 4

Summary of Hierarchical Regression Analysis for Variables Predicting Men's Depression Scores

Variable	*B*	*SE B*	β	ΔR^2
Step 1				.177***
Age	.310	.091	.255***	
Subjective Financial Situation	-.195	.093	-.160*	
Number of Illnesses	.254	.091	.208**	
Step 2				.054***
Stress	.298	.091	.245***	
Step 3				.160***
Mastery	-.045	.050	-.069	
Outcome Control	-.190	.035	-.421***	
Step 4				.057**
Problem-Focused Coping	-.029	.041	-.050	
Emotion-Focused Coping	.153	.095	.104	
Social Support Seeking	-.086	.045	-.130	
Avoidance Coping	.158	.058	.192**	
Step 5				.027
Problem-Focused Coping by Mastery	.017	.026	.052	
Emotion-Focused Coping by Mastery	.115	.068	.154	
Social Support Seeking by Mastery	.031	.032	.083	
Avoidance Coping by Mastery	-.037	.038	-.086	
Problem-Focused Coping by Outcome Control	-.014	.017	-.064	
Emotion-Focused Coping by Outcome Control	-.063	.050	-.116	
Social Support Seeking by Outcome Control	-.015	.021	-.060	
Avoidance Coping by Outcome Control	.001	.026	.005	

Adjusted $R^2 = .408$; $F(158) = 7.057$, $p < .001$, $N = 159$, *$p < .05$, **$p < .01$, ***$p < .001$

Note. Social support seeking was a non-significant negative trend with a noteworthy p value of .056. Number of illnesses and financial adequacy lost significance in step 2 and age lost significance in step 4; stress lost significance in step 3 but regained it in step 4;

and social support seeking gained significance in step 5 by being negatively associated with depression scores.

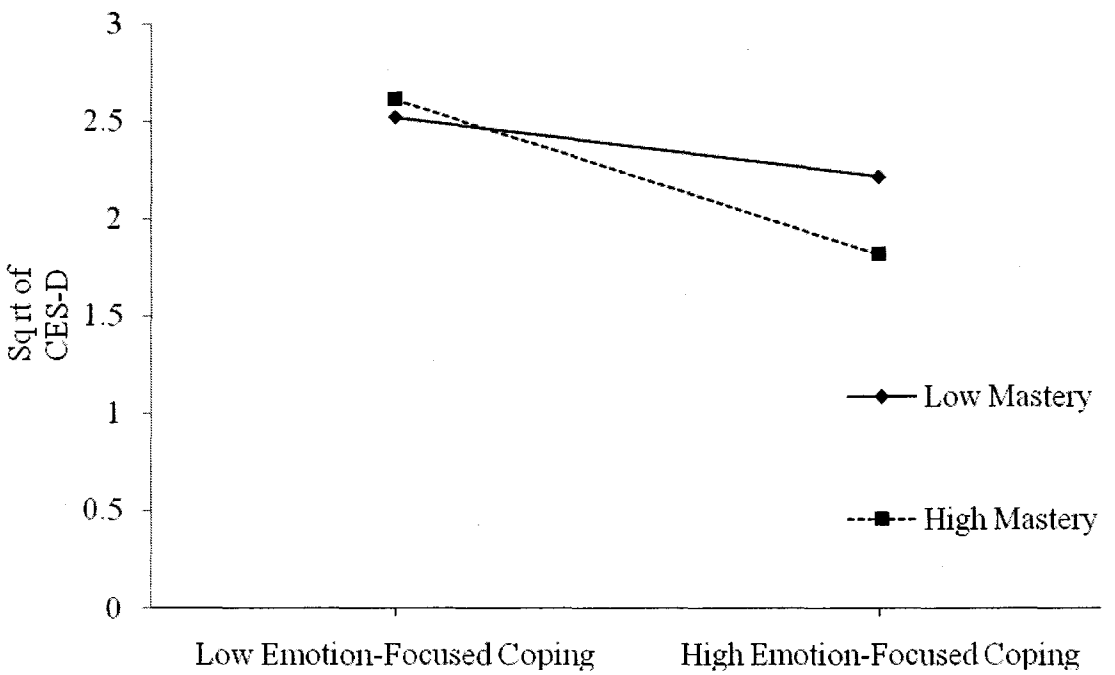
regressions in the first step, subjective stress was entered in the second step, personal control factors were entered in the third step, coping factors were entered in the fourth step, and interactions between coping and control factors were entered in the fifth step. Tables 3 and 4 present the results from women's and men's regressions, respectively. Variables accounting for significant variance in depression scores are noted with asterisks. For space purposes, only the coefficients and significance of variables new to the step are listed; however any instances in which variables gained or lost significance in subsequent steps are noted below the tables. Please see Appendix B for results from the complete direct-entry (i.e., single-step) regressions. These tables also provide partial and zero-order correlations for each independent variable.

Results from the regression conducted with women showed that of the demographic variables, only number of illnesses was statistically significant and was positively associated with depression. Step 1 accounted for close to 8% of the variance in women's depression scores. Stress was a statistically significant positive predictor and accounted for close to 30% of additional variance in women's depression scores. Mastery and outcome control were both statistically significant negative predictors of women's depression in Step 3 accounting for over 14% of additional variance in women's depression scores. Only two coping factors were statistically significant in Step 4 and the step accounted for only 4% of additional variance. Specifically, avoidance was positively associated and emotion-focused coping was negatively associated with depression. Step 5 was not statistically significant. As the step was not statistically significant, contributions

of predictors within the step are generally not interpreted. These statistically significant interactions are described here, however, as they suggest how coping and control function to predict psychological health and they highlight questions for future research. Emotion-focused coping interacted with both control components, and avoidance and social support seeking interacted with outcome control to predict statistically significant additional variance in depression. Figures 3 through 6 graph the significant interactions for women.

Results for men's final hierarchical regression model of depression showed that all demographic variables were statistically significant predictors of depression scores and Step 1 accounted for close to 18% of the variance in men's depression scores. Specifically, age and number of illnesses were positively associated with depression, and financial adequacy was negatively associated with depression. Stress had a statistically significant positive association with men's depression accounting for close to 5.5% of additional variance. In Step 3, only outcome control showed a significant negative association with depression and this step accounted for 16% of additional variance. Of the coping factors entered into the regression in Step 4, only avoidance coping showed a statistically significant trend and was positively associated with depression scores. Social support seeking showed a noteworthy but non-significant negative trend that reached significance in Step 5 in predicting men's depression. Step 4 accounted only 6% of additional variance in men's depression scores. Step 5 was not significantly predictive of men's depression scores and none of the interactions in the one step model (Appendix B) were statistically significant predictors of men's depression scores.

Further analyses were conducted to examine whether there were significant sex differences in the beta weights of the nine variables found to be statistically significant in predicting depression in any one of the two regressions. Specifically, beta weights were



Emotion-Focused Coping by Mastery

Figure 3. Women's regression paths for different levels of their frequency of use of emotion-focused coping and mastery.

Note. The units on the graph's vertical axis reflect the square roots of participants' depression scores. The typical threshold for a diagnosis of depression (i.e., a score of 16 on the CES-D) is equivalent to a measurement of 4 units on this graph's vertical axis.

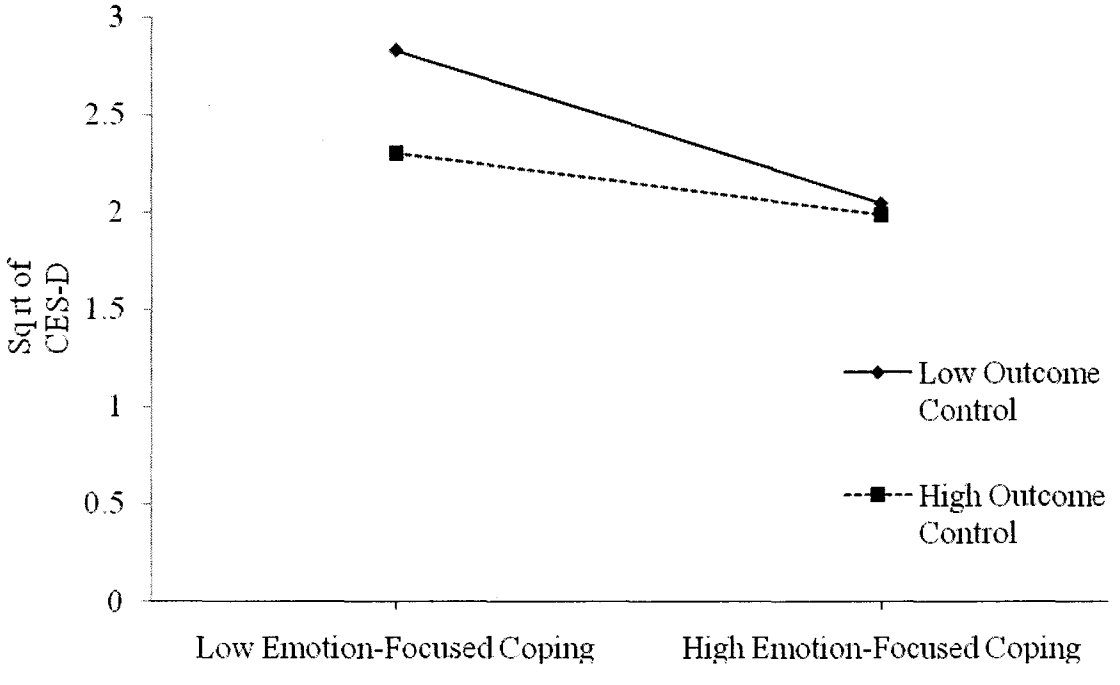


Figure 4. Women's regression paths for different levels of their frequency of use of emotion-focused coping and outcome control

Note. The units on the graph's vertical axis reflect the square roots of participants' depression scores. The typical threshold for a diagnosis of depression (i.e., a score of 16 on the CES-D) is equivalent to a measurement of 4 units on this graph's vertical axis.

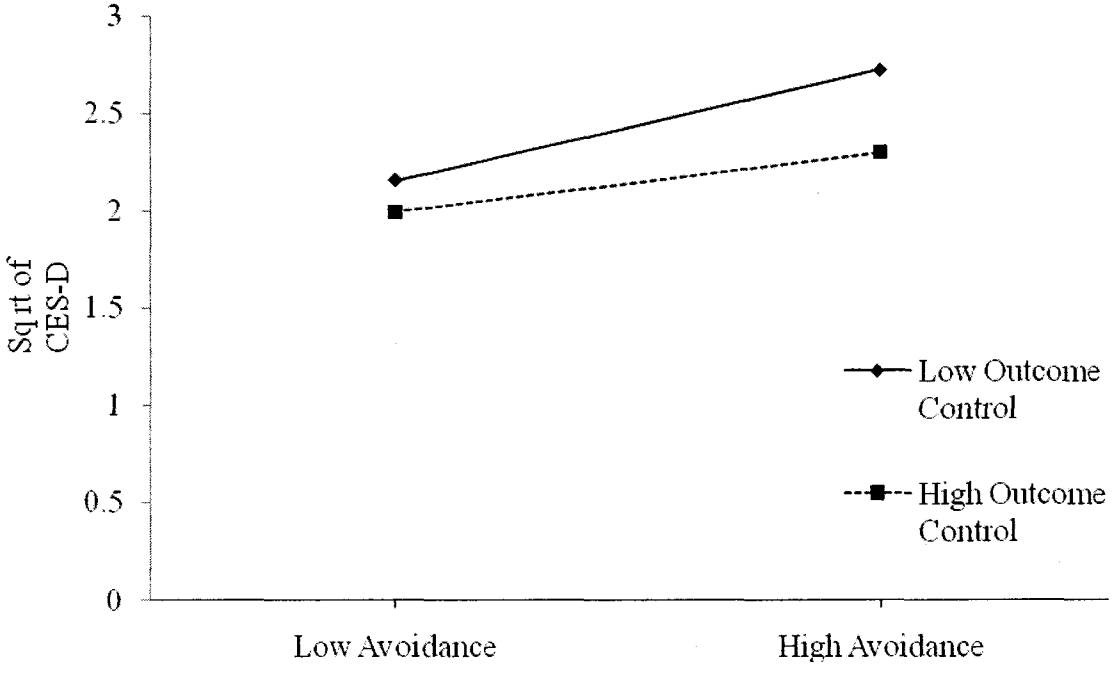


Figure 5. Women's regression paths for different levels of their frequency of use of avoidance coping and outcome control.

Note. The units on the graph's vertical axis reflect the square roots of participants' depression scores. The typical threshold for a diagnosis of depression (i.e., a score of 16 on the CES-D) is equivalent to a measurement of 4 units on this graph's vertical axis.

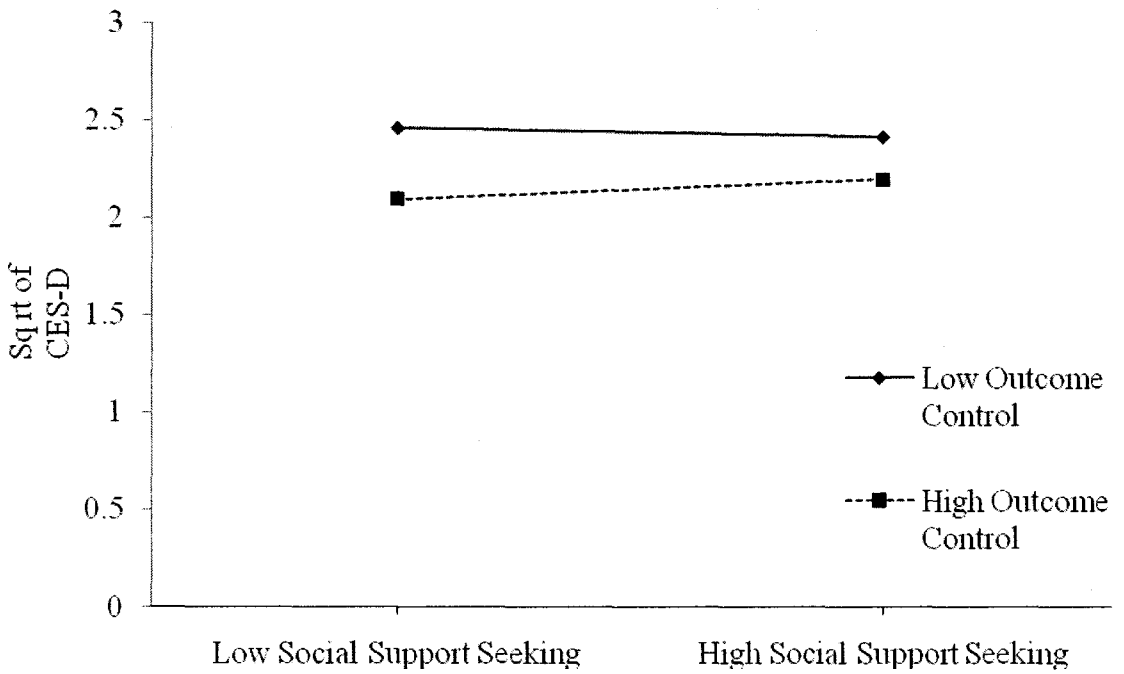


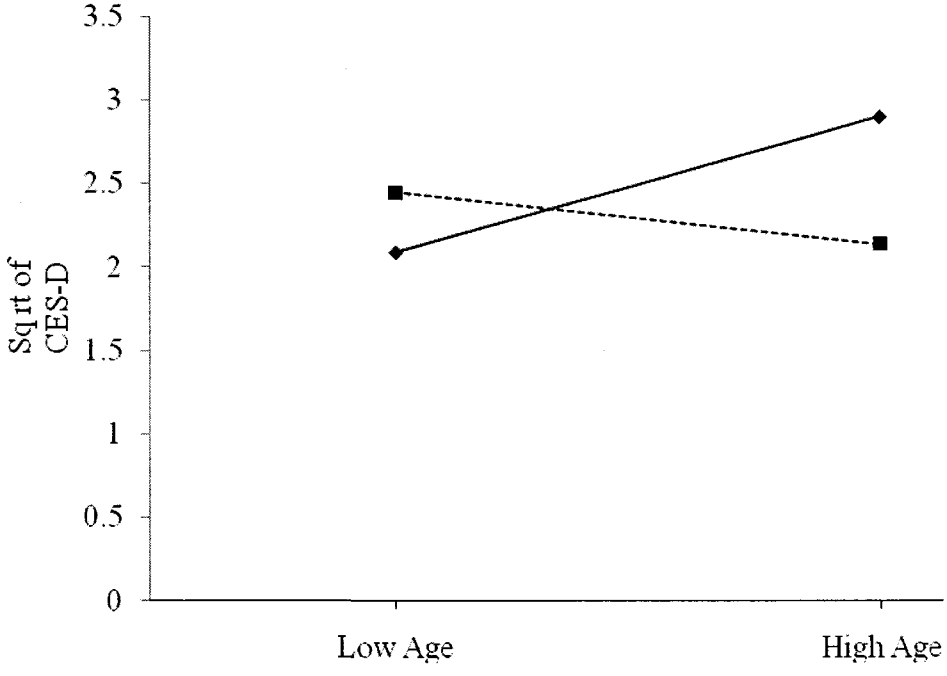
Figure 6. Women's regression paths for different levels of their frequency of use of social support seeking and outcome control.

Note. The units on the graph's vertical axis reflect the square roots of participants' depression scores. The typical threshold for a diagnosis of depression (i.e., a score of 16 on the CES-D) is equivalent to a measurement of 4 units on this graph's vertical axis.

compared for the following variables: age, financial adequacy, social support seeking, emotion-focused coping, mastery, emotion-focused coping by mastery, emotion-focused coping by outcome control, social support seeking by outcome control, and avoidance by outcome control. In SPSS, sex was dummy-coded so that males received a score of zero and women received a score of one. Interaction variables were then created for sex by each of these nine variables. Nine separate, direct-entry, regressions were then run, each with all of the original variables from the five-step hierarchical regressions as well as one of the created interaction terms. Results showed that there were only three significant differences found between men's and women's beta weights. For the interaction effects in the regressions, there were significant sex differences for the beta weights of age: $t(346) = -2.529, p < .05$; social support seeking: $t(346) = 2.532, p < .05$; and emotion-focused coping: $t(346) = -3.126, p < .01$. The beta weights for the other variables cannot be considered to differ reliably by sex. Figures 7, 8, and 9 graphs the statistically significant sex difference in the beta weights for age, social support seeking, and emotion-focused coping, respectively, in predicting depression.

The SIMPLE programs (O'Conner, 1998), which perform the computations recommended by Cohen and Cohen (1983), were used to illustrate the interactions in graphs 3 through 9. Figures 3 through 6 show the significant interactions in predicting women's depression scores. "High" and "low" refer to one standard deviation above and below the mean for each variable. A high score on both the outcome control and mastery

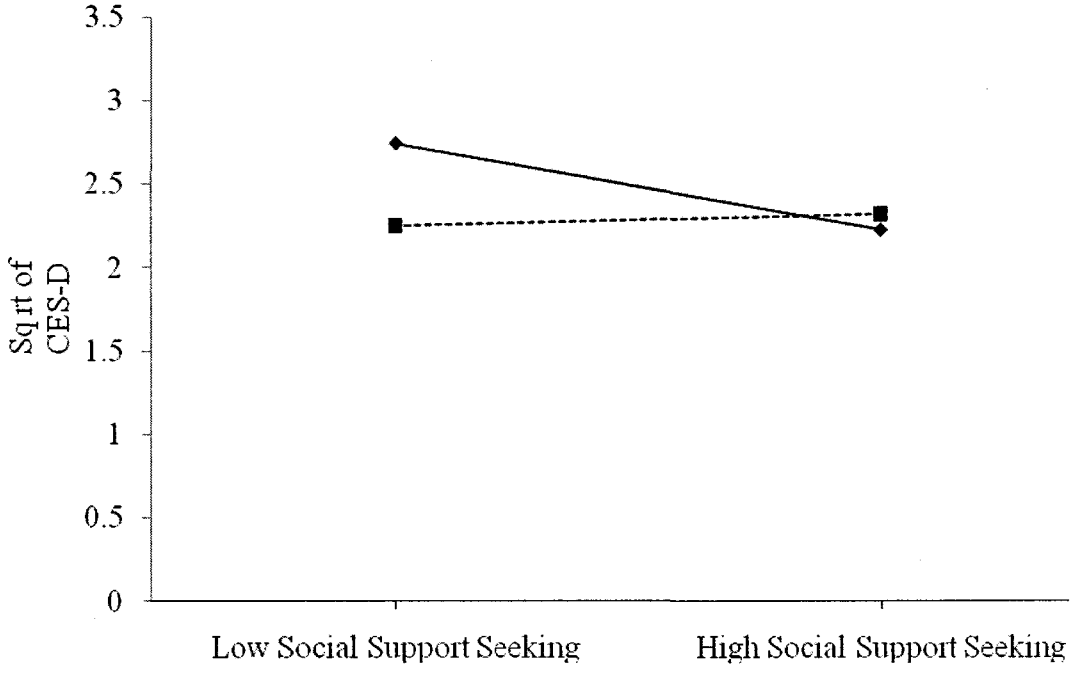
factors would refer to someone who perceives high control in these domains. As regressions were run with the square roots of CES-D scores, the units on the graphs' vertical axes reflect the square roots of participants' depression scores. The typical



Sex Differences in the Beta Weights for Age

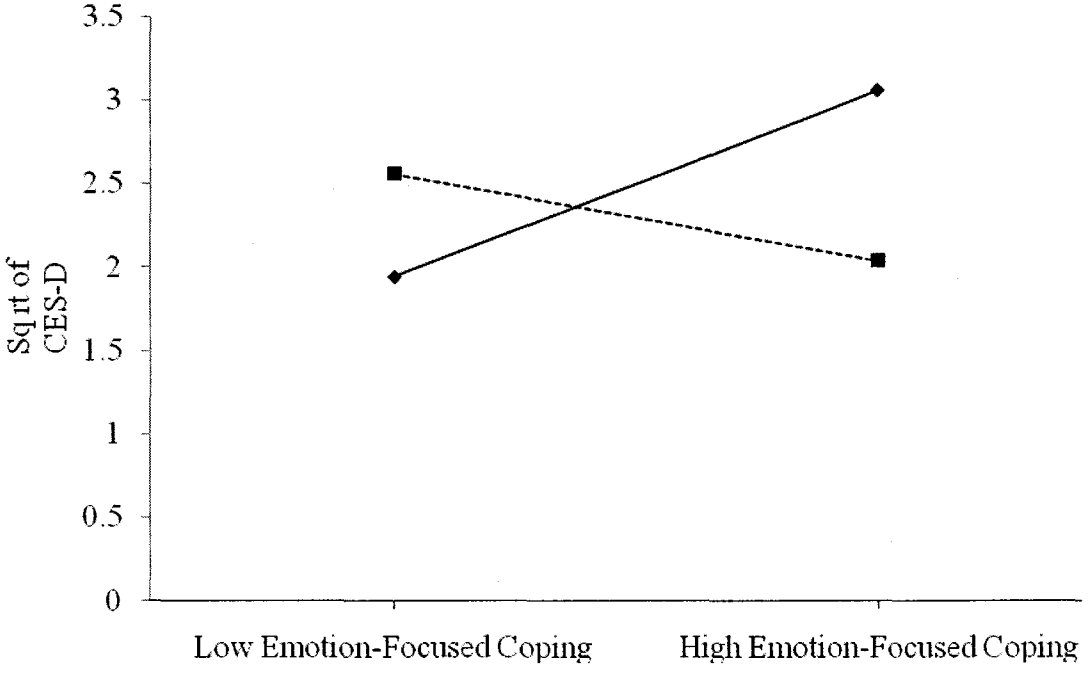
Figure 7. Regression paths for age and sex.

Note. The Dotted line represents the women's regression path and the solid line represents the men's regression path. The units on the graph's vertical axis reflect the square roots of participants' depression scores. The typical threshold for a diagnosis of depression (i.e., a score of 16 on the CES-D) is equivalent to a measurement of 4 units on this graph's vertical axis.



Sex Differences in the Beta Weights for Social Support Seeking

Figure 8. Regression paths for the different levels of social support seeking and sex. *Note.* The Dotted line represents the women's regression path and the solid line represents the men's regression path. The units on the graph's vertical axis reflect the square roots of participants' depression scores. The typical threshold for a diagnosis of depression (i.e., a score of 16 on the CES-D) is equivalent to a measurement of 4 units on this graph's vertical axis.



Sex Differences in the Beta Weights for Emotion-Focused Coping

Figure 9. Regression paths for the different levels of emotion-focused coping and sex. *Note.* The Dotted line represents the women's regression path and the solid line represents the men's regression path. The units on the graph's vertical axis reflect the square roots of participants' depression scores. The typical threshold for a diagnosis of depression (i.e., a score of 16 on the CES-D) is equivalent to a measurement of 4 units on this graph's vertical axis.

threshold for a diagnosis of depression (i.e., a score of 16 on the CES-D) is equivalent to a measurement of four units on the graphs' vertical axes. Figure 3 illustrates the interaction between emotion-focused coping and outcome control in predicting women's depression scores. The figure shows that in general, high emotion-focused coping was associated with lower depression scores, and this trend was strengthened for women who also reported high mastery. That is, high emotion-focused coping paired with high mastery was associated with the lowest depression scores. Different levels of mastery were not associated with depression for women who employed less emotion-focused coping strategies. Figure 4 also shows that in general lower emotion-focused coping scores were associated with higher depression scores. This trend was strengthened for women who also reported lower outcome control. Degree of outcome control appeared only to be associated with depression scores for women who reported less emotion-focused coping.

Figure 5 presents the interaction between women's outcome control and their frequency of use of avoidance coping. The graph illustrates that while increased avoidance was associated with increased depression scores, this trend was strengthened for women who also perceive less outcome control. Greater perception of outcome control, in general, was associated with a lower score on the CES-D.

Figure 6 illustrates the interaction between social-support seeking and outcome control in predicting women's depression scores. The most salient trend illustrated in this

graph was the main effect for outcome control in that feeling less outcome control was associated with increased depression scores. This effect was slightly strengthened for women who also employed less social support seeking coping strategies.

Figure 7 illustrates the statistically significant interaction between age and sex in predicting participants' depression scores. This graph shows the men's significant positive association between age and depression. While age was not significantly predictive of the women's depression, the graph illustrates a negative trend for the women's age and depression.

Figure 8 illustrates the statistically significant interaction between frequency of use of social support seeking and sex in predicting participants' depression. This graph shows a statistically significant negative trend for the men in the association between social support seeking and depression, but no trend for the women.

Figure 9 illustrates the statistically significant interaction between emotion-focused coping and sex in predicting participants' depression scores. While emotion-focused coping was not significantly predictive of the men's depression scores, there was a statistically significant sex difference in the beta weights for emotion-focused coping in predicting depression. For the women, there was a negative trend between frequency of use of emotion-focused coping and depression scores; whereas the trend for the men between use of emotion-focused coping and depression scores was positive.

Discussion

The present study was aimed at identifying how personal control and coping are associated with depression in retirees. A second goal for this study was to determine the sex differences in these associations.

Confirmatory factor analysis on the four-factor model of coping (Carver et al., 1989) generally supported the theory that the twelve types of coping can be loaded onto four higher order factors. Carver and colleagues suggested that Active Coping, Planning, and Suppression of Competing Activities subscales load onto one latent factor which they referred to as Problem-Focused Coping as it involves efforts aimed at dealing directly with or modifying the stressors. Confirmatory factor analysis with the present study's sample provided support for this model. While Instrumental Support Seeking also loaded to a small but statistically significant degree onto this latent factor, this cross-loading was consistent with previous research, (e.g., Carver et al.; Dalton, 2005) and Carver and colleagues justify this cross loading theoretically. As the model suggests, Acceptance, Humour, and Religion subscales loaded onto one latent factor entitled Emotion-Focused Coping because it includes efforts aimed at reducing or managing the distress or internal consequences associated with the stress. Behavioural Disengagement, Mental Disengagement, and Denial subscales loaded onto one factor, which Carver and colleagues entitled Avoidance Coping, as it includes strategies aimed at distracting oneself temporarily from the stressor. Venting of Emotions was also found to load onto

the Avoidance factor to a small but statistically significant degree and this cross loading was also consistent with previous research (e.g., Carver et al., 1989; Dalton, 2005). Finally, as expected given the model, Instrumental Support Seeking, Emotional Support Seeking, and Venting of Emotions loaded onto one latent factor entitled Social Support Seeking as it involves socially-related efforts to manage stress. Behavioural Disengagement and Turning to Religion coping strategies also loaded with modest but statistically significant degrees onto this latent factor. These latter loadings were not predicted by Dalton or by Carver and colleagues but were required in the present study to allow the sample data to fit the model. It makes theoretical sense that the Turning to Religion subscale would be associated with other Social-Support Seeking strategies as involvement in religious communities can be an important means of social support. For example, Ellison and George (1994) showed that in a sample of 2956 south-eastern community members, frequent churchgoers reported larger social networks, more contact with their network members, more types of social support received, and a greater preference for the quality of their social relationships than community members who did not attend church. It is not clear why Behavioural Disengagement would load significantly on the Social Support Seeking factor. It may be due to the possibility that social support seeking can be used as an avoidance mechanism. With the exception of a few cross loadings, which Carver and colleagues explain are to be expected given that coping strategies are not mutually exclusive functions, the model seemed to fit the present population adequately. This allowed for the estimation of weighted factor scores and for the meaningful use of the four-higher order coping factors as predictors of depression.

Confirmatory factor analyses on the two-factor model of personal control (Lachman & Weaver, 1998) suggested that the scale measures two distinct components. The model adequately fits the data without any items cross loading on the other latent factor. Results from this analysis allowed for the estimation of weighted factor scores and for the meaningful inclusion of the Outcome Control and Mastery factors in men's and women's hierarchical regression models.

In the assessment of how control and coping predict depression scores for men and women, the present study controlled for individual differences in age, perception of financial adequacy, number of illnesses, and stress. Number of illnesses and stress were significantly positively associated with depression in both sexes, while age and financial adequacy were only predictive of the men's depression. Analyses of these variables' beta weights showed that there was a significant sex difference in how age predicted depression scores, but not for how financial adequacy predicted depression scores.

As the present study employed a novel tri-scale measure of subjective stress for the first time, it is important to note that with this scale, subjective stress was found to be an important predictor of depression, particularly for women. This measure of subjective stress accounted for approximately 31% and 11% of the variance in women's and men's respective depression scores as shown by the zero-order correlation statistics (please refer to Appendix B). Of course, some of this variance was shared with the other predictors in the regression model.

Based on previous research (e.g., Tamres et al., 2002), it was hypothesized that women would report greater use of many of the coping strategies than would men. While men and women did not differ in their use of any of the higher order coping factors when

factor scores were estimated from the CFA loadings, women did report a higher frequency of use of several of the coping subfactors. Specifically, women reported significantly more planning, venting of emotions, instrumental social support, emotional support, behavioural disengagement, mental disengagement, and religion. There were no other sex differences in coping subfactor scores. It is interesting that sex differences were found for coping subfactors, but not for coping factor scores. To further examine this discrepancy, participants' coping subscores were standardized based on scores from both sexes and higher-order coping scores were created from the means of the appropriate subfactors. Independent sample *t*-tests were then run to examine sex differences in these higher-order coping scores. Results showed that when higher-order coping scores were generated via this method, women reported significantly greater use of all of the higher-order coping strategies. Although estimating latent factor scores from weighted composites is more statistically sound than generating latent variable scores from unweighted composites, the former method is not frequently employed in the coping literature. Results from the present study suggest that when coping factors are estimated via the more conservative method, sex differences in the frequency of use of coping strategies may be less salient than expected.

Based on previous research, it was hypothesized that high scores in both control components would be negatively associated with depression scores for both women and men. The women's regression model showed main effects for both control components; while the regression model for men showed only a significant main effect for the outcome control domain. Despite this, there were no significant sex differences in the beta weights for mastery in the prediction of depression which suggests that mastery was

not differently correlated with depression based on sex. It must also be noted that control components were included in the regression after the demographics and stress predictors. The men's and the women's intercorrelation matrices for all variables examined in the present study (Appendix B) show that mastery and outcome control correlated with depression to a statistically significant degree. That is mastery accounted for 16% of variance and outcome control accounted for 32% and 35% of variance in the women's and men's respective depression scores. Only for women, however, did mastery explain unique variance above and beyond the variance accounted for by stress and demographic predictors. These results suggest that for men, any correlation that mastery may have to enable resilience to depression can be accounted for by men's age, perception of financial comfort, perceived stress, and number of illnesses. Importantly, the present study is correlational and thus from the data it cannot be determined how control factors, demographics, stress, and depressive symptoms are causally related. However, theoretically, both mastery and control are likely beneficial to men's and women's psychological health during adjustment to retirement through several pathways. For example, as mentioned in the introduction section, perception of control is theorized to impact individuals' choice and efficacy of coping strategy implementation. Results from the present study seem to support the hypothesis that subjective sense of control may positively impact efficacy of use of women's but not men's coping strategies. Longitudinal designs predicting change or more qualitative interview techniques may be methods to further investigate the direction of causality between these variables. Both the men's and the women's control components, however, predicted approximately 15% of additional variance in depression. This finding suggests the importance of assessing

individuals' beliefs about personal control in predicting psychological resilience during the retirement transition.

Several main effects for coping were hypothesized. Avoidance coping was hypothesized to be positively associated with depression scores for both men and women. This hypothesis was supported and in general, less use of avoidance in times of stress predicted lower depression scores for both sexes. This result lends support to the theory that it is likely not beneficial to cope with distress by avoiding the source of stress. Of course the present study does not allow for causal inferences to be drawn.

Ratliff-Crain and Baum (1990) noted that there are positive and negative effects of social support seeking. They explain that for this reason, studies tend to find positive, negative, or no associations between use of social support seeking and psychological health outcomes. They state that the latter occurs in situations when positive and negative effects cancel each other out. Based on previous findings, it was hypothesized that women in the present sample would have a positive association between social support seeking and depression scores and that men would have no association. The results did not demonstrate clear support for this hypothesis. In the men's regression, social support seeking was not predictive of men's depression scores in step four, but the factor demonstrated a noteworthy negative trend and became a significant negative predictor of men's depression in step five. There was no main effect for social support in the women's regression and further analyses yielded a statistically significant sex difference in the beta weights for social support seeking, suggesting on first glance that this coping strategy was associated with psychological health in men, but not in women. Despite these findings, the men's intercorrelation matrix, showed that social support seeking was not

significantly predictive of men's depression. A likely interpretation of these results is that the correlation between the men's social support seeking and depression may have been strengthened in the fifth step of the regression by an interaction acting as a suppressor variable for the coping factor. This explanation questions the meaning of the statistically significant negative association between men's social support seeking and depression. Moreover, although there was no main effect for women's level of social support seeking in predicting depression, this coping factor interacted in a small but significant manner with outcome control to predict women's depression scores. Specifically, for women who believe that they can accomplish goals without the hindrance of external constraints, less use of social support was associated with slightly lower depression scores; conversely, for women who believe that many external constraints hinder their goal pursuits, less use of social support was associated with slightly higher depression scores. Perhaps recently retired women who perceive low control over their outcomes benefit from using coping strategies other than social support seeking in response to stress; whereas, social support seeking may serve to enable some resilience in recently retired women who perceive little control over their outcomes. In conclusion, the present study interprets that in general, social support seeking may be helpful for recently retired women with low outcome control, but may be less useful for recently retired men. Future studies with experimental or longitudinal designs may be helpful for confirming these interpretations.

Based on previous literature, it was also hypothesized that problem-focused coping would neither be predictive of men's nor women's depression scores. This hypothesis was supported in the present sample of retirees. There were no significant main effects for problem-focused coping, nor did problem-focused coping interact with

control components to significantly predict depression scores. Manfredi's and Pickett's (1987) suggested that conflict-related stress tends to lead to problem-focused coping and loss-related stress tends to lead to emotion-focused coping. The findings that problem-focused coping was unrelated to depression scores may suggest that stressors experienced by the present sample of retirees are more often loss-related than conflict-related, and therefore problem-focused coping strategies are less useful for reducing the participants' distress. This would be consistent with the idea that adjusting to retirement involves adjusting to the loss of work-related goals and resources.

Emotion-focused coping was hypothesized to be negatively associated with depression scores for both men and women. This hypothesis was partially supported in that emotion-focused coping was negatively associated with women's depression scores, and interacted significantly with both control components to predict depression scores. Emotion-focused coping did not, however, play a significant role in predicting men's depression scores either by main effect or by interacting with control components. Furthermore, significant sex differences were found in how emotion-focused coping correlated with depression scores, such that men's emotion-focused coping scores showed a non-significant positive association in predicting men's depression. Reported use of emotion-focused coping clearly associated differently with the men's depression than it did with the women's depression in the present sample. As there were no sex differences in the frequency of use of emotion-focused coping, this was not the reason for the sex-specific effect. An explanation for this sex-specific effect may be that men in the present sample may not be using emotion-focused coping strategies as effectively as are women, regardless of their levels of reported mastery. It may be that men with more

depressive symptoms are employing slightly more emotion-focused coping to cope with their distress then are men with fewer depressive symptoms, but the men are employing the strategies ineffectively. As a result, these men may not be obtaining the same benefits from the coping strategy as women may be obtaining. Considering that emotion-focused coping has been stereotypically viewed as a more feminine coping strategy and used more often by women than men (Tamres et al., 2002) it may be that this cohort of men did not spend years practicing and developing their emotion-focused coping strategies, whereas women did. The men in the present study may have found themselves confronted by the stressors of retirement transition for which more productive coping strategies were less appropriate. As a result, men may be employing emotion-focused coping strategies with lower efficacy than are women. As discussed in the introduction section, the benefits of using a particular coping strategy depend upon effective implementation of that strategy. Further research is required to directly examine sex differences in efficacy of coping strategy use.

According to previous research which suggests that increased sense of control is associated with effective use of coping strategies, it was expected that sense of control would moderate the associations between use of coping strategies and depression scores to a significant degree. It was hypothesized that these interaction effects would account for variance in depression scores above and beyond variance explained by the main effects of control and coping strategies. As expected, all of the coping factors which significantly predicted women's depression scores also interacted with women's control components to explain additional variance. Furthermore, whether social support seeking was positively or negatively associated with women's depression scores was dependent

on the degree to which women perceived control over their outcomes. These findings support the hypothesis that while certain coping strategies tend to be more effective than others for specific populations and contexts, high control may serve to further increase women's abilities to effectively choose and employ coping strategies. An alternative explanation is that effective implementation of coping strategies leads to decreased depression scores and feelings of competency.

Contrary to the hypotheses, control components did not interact significantly with coping strategies to explain additional variance in men's depression scores. Nor were any of the coping strategies, other than social support seeking which is appears to have obtained significance due to a suppressor variable, predictive of men's depression scores in the regression. Results convey that in this particular cohort of men, outcome control contributed to men's resilience in adjusting to retirement, but not through the moderation of coping strategy use. In this study, men who view the world as a place in which goals can be pursued and obtained without the interference of external constraints tended to have fewer symptoms of depression. Although men's degree of mastery did not correlate with their depression scores, whereas women's did, there was no significant difference between men's and women's beta weights for mastery. Therefore, from this study, we cannot conclude that mastery predicted depression differently for men than it did for women. There were no significant differences between men's and women's beta weights for emotion-focused coping by the control variables, for outcome control by avoidance, or for outcome control by social support seeking. Therefore, it cannot statistically be claimed from the results of this study that these interactions were differently predictive of men's and women's depression scores. Further research is required to confirm whether

these interaction effects are differently predictive of psychological health for men and for women.

As discussed in the introduction section, previous research does not explicitly suggest which control components are expected to moderate specific associations between types of coping and depression scores. Nor does previous research provide hypotheses for how such effects should differ between sexes. A more detailed analysis of women's significant interactions in the present study provides a new understanding on this topic. Both control components interacted significantly with emotion-focused coping to predict women's depression scores. While causation cannot be inferred by the present study, results lend support to the idea that recently retired women find emotion-focused coping beneficial to their psychological health. Results appear to suggest that women's sense of mastery increases this effect. It may be the case that women who are highly effective at emotion-oriented coping, view themselves as having high mastery. This sense of competence may also serve to encourage more effective emotion-focused coping. Outcome control interacted differently with emotion-focused coping in predicting depression. It seems that for women who do not employ emotion-focused coping often, having the belief that one can successfully pursue goals without external hindrances tended to help buffer the negative effects of not employing emotion-focused coping. Thus it appears that while women's high mastery may be associated with more effective use of the beneficial emotion-focused coping strategies, high control in the constraint domain serves to buffer the negative effects of low use of emotion-focused coping. Further research with an experimental design could be useful to directly examine this hypothesized explanation.

In accordance with this explanation, outcome control also interacted significantly with avoidance and social support seeking in predicting depression scores. Again, believing in control in the constraint domain appeared to buffer the negative effects that the maladaptive avoidance strategy has on women's well-being.

Although small, the interaction between women's outcome control and social support is also interesting. It appears that use of social support seeking may be counterproductive for women with high control in the constraint domain, whereas it may be adaptive for women who perceive low control in the constraint domain. It may be the case that social support is a buffer against the negative emotional consequences of viewing the world as full of external hindrances. Perhaps, women who already benefit from the adaptive belief that constraints do not interfere with their goal pursuits do not obtain the same benefits from seeking social support during times of stress. It may also be that women who differ in outcome control also differ in the nature of stressors which they are reporting, such that some stressors may be more appropriate to benefit from social support seeking. The results, however, are in line with the tendency for research to yield different valences in the associations between social support seeking and depression scores. Further research is required to better understand the causes for this interaction.

In the population of recently retired women, it appears as though both perception of higher mastery and higher outcome control are important in predicting women's psychological health. It also appears that use of emotion-focused coping is adaptive, use of avoidance coping is maladaptive, and use of problem-focused coping is irrelevant to psychological health at this time. It seems that social support seeking can be useful for some women and ineffective for others. Results from the present study also suggest that

for retired women, high mastery may increase the effectiveness of the adaptive coping strategy, i.e., emotion-focused coping. While high outcome control may serve to buffer the negative effects of more maladaptive tendencies, such as the tendency to employ less emotion-focused coping and the tendency to avoid. Similarly to outcome control, social support seeking may buffer the negative consequences of other women's maladaptive beliefs, such as the belief in low outcome control.

This proposed explanation for how women's sense of control predicts depression scores may be helpful for understanding men's results. Perhaps the men's mastery scores did not interact significantly with coping strategies to predict depression in retirement because the men's perception of their competence is unrelated to their ability to employ coping strategies that may be more effective during retirement. Men in this study may, in general, be less effective at employing emotion-focused coping strategies which may render their frequency of use of these strategies unrelated to their CES-D scores. In keeping with this hypothesis, men's high outcome control may therefore act as a buffer against the negative psychological effects of ineffective coping, just as outcome control is expected to act as a buffer for women's psychological health.

Future research is required to more thoroughly test the hypotheses proposed as explanations for the results obtained in the present study. As mentioned, the present study measures coping in terms of frequency of strategy use but does not directly measure efficacy of coping strategy use. The problem is that individuals' frequency of coping strategy use is not necessarily highly correlated with their abilities to effectively implement the strategies. For example, individuals may use coping strategies that they know are ineffective because they have low beliefs in the control domains or because

they do not know how to employ other coping strategies. As well, individuals may employ strategies ineffectively without realizing the strategies' ineffectiveness. Unfortunately, the previous coping literature does not directly measure coping strategy effectiveness, either objectively or subjectively. To explain the results from the present study, it is proposed that compared to men, women may be more effective at employing emotion-focused coping strategies and this sex difference may have contributed to the findings that a) emotion-focused coping only predicted psychological health for the women, b) mastery was associated with women's but not men's depression scores, and c) use of emotion-focused coping was associated with mastery in women, but not men. These findings will be better understood by the direct measurement of coping strategy effectiveness. To address this in future analyses, the present author has added a new dimension to the COPE which directly measures participants' perception of their own efficacy for applying the coping strategies. To follow up this study, both dimensions of the COPE have been provided to participants at Time 4 testing. Future analyses will thus be directed to address the questions highlighted by the results from the present study.

A second and more long-term future goal may be to develop interventions that can enable psychological health in male and/or female retirees. Various interventions involving training coping techniques have successfully prevented relapse of mental illness (Clare & Singh, 1994) and have helped older adolescents and young adults with developmental difficulties manage their anger (Kellner & Tutin, 1995). Would it be effective to help recently retired men to use emotion-focused coping strategies more effectively? Perhaps workers approaching retirement would benefit from psycho-education regarding which strategies tend to be adaptive for retirees. Alternatively,

perhaps interventions could be successfully directed towards enabling personal control components. Clinical research would be useful for determining which intervention strategies would be effective and practical in various populations of retirees. Considering the large number of retirees who encounter difficulties adjusting to retirement, development of effective interventions may be a worthwhile goal.

As discussed in the introduction section, depression is a serious disorder which negatively affects the quality of life of many retirees. Considering the large number of Canadians currently in retirement or approaching retirement, it is important that we gain understanding of what factors contribute to resilience during retirement transition. The present study contributes to this understanding by demonstrating how control and coping factors predict depression scores above and beyond the effects of demographic predictors and subjective stress for both sexes in the transition to retirement. In the present study, control components were greater predictors of depression than were coping strategies and were also shown to be implicated in the associations between coping strategy use and depression scores in women. The present study demonstrated important general and sex-specific effects regarding how coping and control predict depression scores, and it lends further support to the perspective that important information is lost by generalizing across sexes. Despite these sex differences, the regression account for a considerable percentage of variance in depression scores, approximately 50% and 41% according to the adjusted R^2 statistics, for women and men, respectively. The control and coping variables, and their respective interactions accounted for 21% and 24% of additional variance in women's and men's respective depression scores above and beyond the effects of age, number of illnesses, perceived financial adequacy and perceived stress. The present study

also highlights important questions pertaining to sex differences in the efficacy of coping strategy implementation, a necessary direction for future research.

There are some possible limitations in present study which should be noted. First, as previously mentioned, the present study is correlational and thus no causal conclusions can be drawn. A second consideration is that higher order coping strategies, rather than the twelve types of coping, were examined. As the present study and previous research support the four-factor model of coping, use of these four latent factors as predictors is acceptable and yielded interesting findings. Due to limitations associated with the sample size in the present study, it was not possible to examine the interactions between the twelve coping strategies and personal control components, while controlling for important demographic variables. This is not optimal for a few reasons. For example, some of the coping subscales which load onto the same latent factor are qualitatively different from one another and are likely to have different associations with depression scores. This information is lost by simply assessing the higher order factors. Moreover, individuals who employ a high degree of only one strategy within a higher order factor would attain a low to moderate overall score for that higher order factor. Thus some accuracy is lost by including only higher order coping scores in the analyses. A third limitation is the inability to generalize findings from the present sample to all recent retirees. Cultural and environmental differences may impact the sex-differences and associations found in the present sample. It should not be assumed that such associations are to be found in populations with different cultural or environmental contexts.

References

Abela, J.R., Brozina, K., & Seligman, M.E.P. (2004). A test of integration of the activation hypothesis and the diathesis-stress component of the hopelessness theory of depression. *British Journal of Clinical Psychology, 43,* 111-128.

Abela, J.R.Z. & Seligman, M.E.P. (2000). The hopelessness theory of depression: A test of the diathesis-stress component of the hopelessness theory of depression. *British Journal of Clinical Psychology, 43*, 111-128.

Abramson, L.Y., Seligman, M.E.P., & Teasdale, I. (1978). Learned helplessness in humans: Critique and reformulation. Journal of Abnormal Psychology, 87, 49-59.

Ajzen, I. (1988). *Attitudes, personality, and behavior.* Chicago: Dorsey Press.

Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*, 179-211.

Aldwin, C.M. & Revenson, R.A. (1987). Does coping help? A re-examination of the relation between coping and mental health. *Journal of Personality and Social Psychology, 53*, 337-348.

Alloy, L.B. & Abramson, L.Y. (1979). The judgement of contingency in depression and students: Sadder by wiser? *Journal of Experimental Psychology: General, 108,* 441-485.

Alloy, L.B., Abramson, L.Y., Hogan, M.E., Whitehouse, W.G., Rose, D.T., Robinson, M.S.,

Kim, R.S., & Lapkin, J.B. (2000). The temple-Wisconsin Cognitive Vulnerability to

Depression Project: Lifetime history of Axis I psychopathology in individuals at high and low cognitive risk for depression. Journal of Abnormal Psychology, 109, 403-418.

Anderson, C.R. (1977). Locus of control, coping behaviours, and performance in stress setting: a longitudinal study. *Journal of Applied Psychology, 62*, 446-451.

Aneshensel, C.S., Frerichs, R.R., & Huba, G.J. (1984). Depression and physical illness: A multiwave, nonrecursive causal model. Journal of Health and Social Behavior, 25, 350-371.

Aspinwall, L.G. & Taylor, S.E. (1992). Modeling cognitive adaptation: A longitudinal investigation of the impact of individual differences and coping on college adjustment and performance. *Journal of Personality and Social Psychology, 63,* 989-1003.

Atchley, R. C. (1976). *The sociology of retirement.* New York: John Wiley.

Averill, J. R. (1973). Personal control overaversive stimuli and its relationship to stress. *Psychological Bulletin, 80,* 286-303.

Ayers, T.S., Sandier, I.N., West, S.G., & Roosa, M.W. (1996). A dispositional and situational assessment of children's coping: Testing alternative models of coping. *Journal of Personality, 64 (4)*, 923 – 958.

Baltes, M.M. & Baltes, P.B. (1986). *The psychology of control and aging.* Hillsdale, NJ: Lawrence Erlbaum Associates.

Bandura, A. (1977). Self-efficacy: Toward a unified theory of behavioral change. *Psychological Review, 84,* 191-215.

Bandura, A. (Eds.) (1997). Exercise of personal and collective efficacy in changing

societies. New York: Cambridge University Press.

Barfield, R.E. & Morgan, J.N. (1974). Early retirement: *The decision and the experience and a second look.* Survey Research Center, Institute for Social Research, University of Michigan, Ann Arbor, Michigan.

Barfield, R.E. & Morgan, J.N. (1978). Trends in satisfaction with retirement. *The Gerontologist*, 18, 19-23.

Bazargan, M. & Hamm-Baugh, V.P. (1995). The Relationship between Chronic Illness and Depression in a Community of Urban Black Elderly Persons. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 50B(2),* 119-127.

Beck, S.H. (1984). Retirement preparation programs: Differentials in Opportunity and Use. *Journal of Gerontology, 39(5),* 596-602.

Belgrave, L.L. & Haug, M.R. (1995). Retirement transition and adaptation: Are health and finances losing their effects? *Journal of Clinical Geropsychology, 1(1),* 43-66.

Ben-Zur, H. (2002). Coping, affect and aging: The roles of mastery and self-esteem. *Personality and Individual Differences, 32,* 357-372.

Bentler, P.M. (1989). EQS: *Structural equations program manual.* Los Angeles: BMDP Statistical Software.

Blankstein, K.R. (1984). Psychophysiology and perceived locus of control: Critical review, theoretical speculation and research directions. In H.M. Lefcourt (Ed.), *Research with the locus of control construct, Vol. 3* (pp.73-95). Orlando: Academic Press.

Blazer, D.G. (2003). Depression in late life: Review and commentary. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences,* 58, 249-265.

Bolger, N. (1990). Coping as a personality process: A prospective study. *Journal of Personality and Social Psychology, 59,* 525-537.

Bonetti, D., Johnston, M., Rodriguez-Marin, J., Pastor, M., Martin-Aragon, M., Doherty, E., & Sheehan, K. (2001). Dimensions of perceived control: A factor analysis of three measures and an examination of their relation to activity level and mood in a student and cross-cultural patient sample. *Psychology & Health, 16 (6),* 655 – 674.

Brandtstädter, J., & Renner, G. (1990) Tenacious goal pursuit and flexible goal adjustment: Explication and related analysis of assimilative and accommodative strategies of coping. *Psychology and Aging, 5(1),* 58-67.

Brandtstädter, J., Wentura, D., & Greve, W. (1993). Adaptive resources of the aging self: Outlines of an emergent perspective. *International Journal of Behavioral development, 16,* 323-349.

Burger, J. M. (1989). Negative reactions to increases in perceived personal control. *Journal of Personality and Social Psychology, 56,* 246-256.

Calasanti, T.M. (1996). Gender and Life Satisfaction in Retirement: An Assessment of the Male Model. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences 1996 51B (1),* 18-29.

Carver, C.S. (1997). You want to measure coping but your protocol's too long: Consider the brief cope. *International Journal of Behavioral Medicine, 4,* 92-100.

Carver, C.S. & Scheier, M.F. (1990). Origins and functions of positive and negative

affect: A control-process view. *Psychological Review, 97 (1),* 19-35.

Carver, C.S. & Scheier, M.F. (1994). Situational coping and coping dispositions in a stressful transaction. *Journal of Personality and Social Psychology, 66,* 184-195.

Carver, C.S. & Scheier, M.F. (1998). On the Self-Regulation of Behavior, New York: Cambridge University Press.

Carver, C.S., Scheier, M.F., & Weintraub, J.K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56,* 267-283.

Catanzaro, S.J. & Greenwood, G. (1994). Expectancies for negative mood regulation, coping, and dysphoria among college students. *Journal of Counseling Psychology,* 41, 34-44.

Cheng, C., Hui, W., & Lam, S. (1999). Coping style of individuals with functional dyspepsia. *Psychosomatic Medicine, 61,* 789-795.

Cheng, C., Hui, W., & Lam, S. (2000). Perceptual style and behavioural pattern of individuals with functional gastrointestinal disorders. *Health Psychology, 19,* 146-154.

Clare, L. & Singh, K. (1994). Preventing relapse in psychotic illness: A psychological approach to early intervention. *Journal of Mental Health, 3 (4),* 541 – 550.

Clark, K.K., Bormann, C.A., *Cropanzano*, R.S., & James, K. (1995). Validation evidence for three coping measures. *Journal of Personality Assessment, 65, (3),* 434 – 455.

Cohen, J. & Cohen P. (1983). Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, NJ: Erlbaum.

Collins, D.L., Baum, A., & Singer, J.E. (1983). Coping with chronic stress at Three Mile

Island: Psychological and biochemical evidence. *Health Psychology, 2,* 149-166.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. E. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin, 127,* 87–127.

Compas, B.E., Malcarne, V.L., & Fondacaro, K.M. (1998). Coping with stressful events in older children and young adolescents. *Journal of Consulting and Clinical Psychology, 56,* 405-411.

Connor-Smith, J.K. & Calvete, E. (2004). Cross-cultural equivalence of coping and involuntary responses to stress in Spain and the United States. *Anxiety, Stress & Coping: An International Journal,* 17 (2), 163 – 185.

Connor-Smith, J.K., Compas, B.E., Wadsworth, M.E., Thomsen, A.H., & Saltzman, H. (2000). Responses to stress in adolescence: measurement of coping and involuntary stress responses. *Journal of consulting and clinical psychology, 68(6),* 976-92.

Connor-Smith, J.K. & Flachsbart, C. (2007). Relations between personality and coping: A meta-analysis. *Journal of Personality and Social Psychology, 93(6),* 1080-107.

Conway, V. J. & Terry, D. J. (1992). Appraised controllability as a moderator of the effectiveness of different coping strategies: A test of the goodness of fit hypotheses. *Australian Journal of Psychology, 44,* 1-7.

Cook, S.W. & Heppner, P.P. (1997). A psychometric study of three coping measures. *Educational and Psychological Measurement, 57,* 906-923.

Cottrell, F. & Atchley, R.C. (1969). *Women in retirement: A preliminary report.* Scripps Foundation: Oxford, Ohio.

Cribier, F. (1981). Changing retirement patterns of the seventies: The example of a generation of Parisian salaried workers. *Ageing and Society, 1*, 51 – 71.

Dalton, C. (2005). *Dispositional coping, psychological health and aging: Comparisons across age and coping profiles*. Unpublished doctoral dissertation, Concordia University, Montreal.

DeNeve, K.M. & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124*, 197-229.

Dhaval, D., Rashad , I., & Spasojevic , J. (2007). The Effects of Retirement on Physical and Mental Health Outcomes. *Andrew Young School of Policy Studies Research Paper Series No. 07-35.*

Drentea, P. (2002). Retirement and mental health. *Journal of Aging and Health, 14 (2),* 167-194.

Drugan, R.C., Morrow, A.L., Weizman, R., Weizman, A., Deutsch, S.I., Crawley, J.N., & Paul, S.M.(1989). Stress-induced behavioral depression in the rat is associated with a decrease in GABA receptor-mediated chloride ion flux and brain benzodiazepine receptor occupancy. *Brain Research. 487(1)*, 45-51.

Ekerdt, D. J., Bosse, R., & Levkoff, S. (1985). An empirical test for phases of retirement: Findings from the normative aging study. *Journal of Gerontology, 40*, 95-101.

Ellison, C.G. & George, L.K. (1994). Religious involvement, social ties, and social support in a southeastern community. *Journal for the Scientific Study of Religion, 33 (1),* 46-61.

Elman, C. & O'Rand. A.M. (1998) Midlife work pathways and educational entry. *Research on Aging, 20*, 475-505.

Endler, N.S., Macrodimitris, S.D., & Kocovski, N.L. (2000). Controllability in cognitive and interpersonal tasks: Is control good for you? *Personality and Individual Differences, 29,* 951-962.

Endler, N.S., Parker, J.D.A., & Summerfeldt, L.J. (1993). Coping with health problems: Conceptual and methodological issues. *Canadian Journal of Behavioural Science, 25,* 384-399.

Evans, G.W., Shapiro, D.H. & Lewis, M.A. (1993). Specifying dysfunctional mismatched between different control dimensions. *British Journal of Psychology, 84,* 255-273.

Fleishman, J.A. (1984). Personality characteristics in coping patterns. *Journal of health and Social Behavior, 25,* 229-244.

Folkman, S. (1984). Personal control and stress and coping processes. A theoretical analysis. *Journal of Personality and Social Psychology, 46,* 839-852.

Folkman, S. & Lazurus, R.S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Healthy and Social Behavior, 21*, 219-239.

Folkman, S., & Lazurus, R.S. (1985). If it changes it must be a process: Study of emotion and coping during three stages of a college examination. *Journal of personality and Social Psychology, 48,* 150-170.

Folkman, S. & Lazurus, R.S. (1986). Stress processes and depressive symptomatology. *Journal of Abnormal Psychology, 95,* 107-113.

Folkman, S., & Lazarus, R. (1988). *Manual for the Ways of Coping Questionnaire.* Palo Alto, CA: Consulting Psychologists Press.

Folkman, S., and Lazurus, R. S. (1988). Coping as a mediator of emotion. *Journal of*

Personality and Social Psychology, 54, 466-475.

Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., and Gruen, R. J. (1986). Dynamics of a stressful encounter: Cognitive appraisal, coping, and encounter outcomes. *J. Person. Soc. Psychol.* 50: 992–1003.

Folkman, S. & Mascowitz, J.T. (2000). Positive affect and the other side of coping. *American Psychologist, 55*, 647-654.

Forsythe, C. J., & Compas, B. E. (1987) . Interaction of cognitive appraisals of stressful events and coping: Testing the goodness of fit hypothesis. *Cognitive Therapy and Research , 11,* 473-485.

Fretz, B. R., Kluge, N. A., Ossana, S. M., Jones, S. M., & Merikangas, M. W. (1989). Intervention targets for reducing preretirement anxiety and depression. *Journal of Counseling Psychology, 36*, 301–307.

Friedmann, E. & Havighurst, R. (1954). The meaning of work and retirement, University of Chicago Press, Chicago.

Gall,T.L., Evans, D.R., & Howard, J. (1997). The retirement adjustment process: Changes in the well-being of male retirees across time. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 52B(3),* 110-117.

Girgus, J. S., & Nolen-Hoeksema, S. (2006). Cognition and depression. In C. L. M. Keyes & S. H. Goodman (Eds.), Women and depression: A handbook for the social, behavioral, and biomedical sciences (pp. 147–175). New York: Cambridge University Press.

Glyshaw, K., Cohen, L.H., & Towbes, L.C. (1989). Coping strategies and psychological

distress: Prospective analyses of early and middle adolescents. American Journal of Community Psychology, 17, 607-623.

Gold, D. P., Andres, D., Etezadi, J., Arbuckle, T., Schwartzman, A., & Chaikelson, J. (1995). Structural equation model of intellectual change and continuity and predictors of intelligence in elderly men. *Psychology and Aging, 10*, 294-303.

Gurin, P., & Brim, O. G. (1984). Change in self in adulthood: The example of sense of control. In P. B. Baltes & O. G. Brim (Eds.), *Life-span development and behavior* (pp. 282-334). San Diego, CA: Academic Press.

Gurland, B.J. (1976). The Comparative Frequency of Depression in Various Adult Age Groups. *Journal of Gerontology, 31(3),* 283-292.

Hasking, P.A., & Oei, T.P.S. (2002). The differential role of alcohol expectancies, drinking refusal self-efficacy and coping resources in predicting alcohol consumption in community and clinical samples. *Addiction Research & Theory, 10 (5),* 465 – 494.

Heckhausen, J. (1991). Adult's expectancies about development and its controllability: Enhancing self-efficacy by social comparison. In R. Schwarzer (Eds.), *Self-efficacy: Thought control of action* (pp. 107-126). Washington, DC: Hemisphere.

Heckhausen, J. & Schulz, R. (1995). A life-span theory of control. *Psychological Review, 102*, 284-304.

Hendrick, C., Wells, K. S., & Faletti, M. V. (1982). Social and emotional effects of geographical relocation on elderly retirees. *Journal of Personality and Social Psychology, 42*, 951–962.

Hobfoll, S.E., Dunahoo, C.L., Ben-Porath, Y. & Monnier, J. (1994). Gender and coping: The dual-axis model of coping. American Journal of Community Psychology, 22 (1), 49-82.

Hobfoll, S.E., Schwarzer, R., & Chon, K.K. (1998). Disentangling the stress labyrinth: Interpreting the meaning of the term stress as it is studied in health context. *Anxiety, Stress, and Coping, 11,* 181-212.

Holahan, C.J. & Moos, R.H. (1987). Personal and contextual determinants of coping strategies. *Journal of Personality and Social Psychology, 52*, 946-955.

Hybels, C.F., Blazer, D.F., & Pieper, C.F. (2001). Toward a threshold for subthreshold depression: An analysis of correlates of depression by severity of symptoms using data from an elderly community sample. *The Gerontologist,* 41, 357-365.

Ingledew, D.K., Hardy, L., Cooper, C.L., & Jemal, H. (1996). Health behaviours reported as coping strategies: A factor analytical study. *British Journal of Health Psychology. 1(3),* 263-281.

Johnston, J. (2003*). Psychology*. Indianapolis. USA: Alpha Books.

Jorm, (1987). Sex and age differences in depression: A Quantitative Synthesis of Published Research. *Australian and New Zealand Journal of Psychiatry, 21 (1),* 46 – 53.

Kellner, M.H. & Tutin, J. (1995). A School-Based Anger Management Program for Developmentally and Emotionally Disabled High School Students. *Adolescence, 30,* 813-825.

Kim, J.E. & Moen, P. (2001). Is Retirement Good or Bad for Subjective Well-Being? *Current Directions in Psychological Science, 10(3),* 83-86.

Kim, J.E. & Moen, P. (2002). Retirement transitions, gender, and psychological well-being a life-course, ecological model. *Journal of Gerontology, 57B (3),* 212–222.

Kim, K.I., Won, W.H., Liu, X., Liu, P., & Kitanishi, K. (1997). Students' stress in China, Japan, Korea: A transcultural study. *International Journal of Social Psychiatry, 43,* 87-94.

Kirsch, R.B., Mearns, J., & Catanzaro, S.J. (1990). Mood regulation expectancies as determinants of depression among college students. *Journal of Counseling Psychology, 37,* 306-312.

Kobasa, S.C. (1979). Stressful life events and health: An inquiry into hardiness. *Journal of Personality and Social Psychology, 37,* 1-11.

Lachman, M.E. & Weaver, S.L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology, 74 (3),* 763-773.

Langer, E. (1979). The illusion of incompetence. In L. Perlmutter & R. Monty (Eds.), *Choice and perceived control (pp.* 306). Hillsdale, NJ: Erlbaum.

Latack, J. C. & Havlovic, S. J. (1992). Coping with job stress: A conceptual evaluation framework for coping measures. *Journal of Organizational Behavior, 13,* 479–508.

Lazarus, R.S. (1993). Coping theory and research: Past, present, and future. *Psychosomatic Medicine, 55,* 234-247.

Lazarus, R. S. (1996). The role of coping in the emotions and how coping changes over the life course. In C. Maletesta-Magni & S. H. McFadden (Eds.), *Handbook of*

emotion, adult development, and aging (pp. 289-306). New York: Academic Press.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping.* New York: Springer.

Levine, J., Warrenburp, S., Kerns, R., Schwartz, G., Delaney, R., Fontana, A., Gradman, A., Smith, S., Allen, S., & Cascione, R. (1987).The role of denial in recovery from coronary heart disease. *Psychosomatic Medicine, 49,* 109-117.,

Litt, M.D., Tennen, H., Affleck, G., & Klock, S. (1992). Coping and cognitive factors in adaptation to in vitro fertilization failure. *Journal of Behavioral Medicine, 15,* 171-187.

Lyne, K. & Roger, D. (2000). A psychometric re-assessment of the COPE questionnaire. *Personality and Individual Differences, 29 (2),* 321-335.

Manfredi, C. & Pickett, M. (1987). Perceived stressful situations and coping strategies utilized by the elderly. *Journal of Community Health Nursing, 4(2),* 99 – 110.

Marshall, G.N. (1991). A multidimensional analysis of internal health locus of control beliefs: Separating the wheat from the chaff? *Journal of Personality and Social Psychology, 61,* 483-491.

Marshall, V.W., Clarke, P.J., & Ballantyne, P.J. (2004). Instability in the Retirement Transition: Effects on Health and Well-Being in a Canadian Study. *Research on Aging, 23 (4),* 379-409.

Marx, E.M. & Schulze, C.C. (1991). Interpersonal problem-solving in depressed students. *Journal of Clinical psychology, 47,* 361-367.

Marziali, E. & Donahue, P. (2001). Resilience Indicators of Post Retirement Well-Being.

Social and Economic Dimensions of an Aging Population Research Papers with number 49.

Mattlin, J.A., Wethington, E., & Kessler, R.C. (1990). Situational determinants of coping and coping effectiveness. *Journal of Health and Social Behavior, 31,* 103-122.

McCrae, R.R. (1989). Age differences and changes in the use of coping mechanisms. Journal of Gerontology: *Psychological Sciences, 44,* 161-169.

McCrae, R.R. & Costa, P.T. (1986). Personality, coping, and coping effectiveness in an adult sample. Journal of Personality, 54, 385-405.

McGreal, R., & Joseph, *S.* (1993). The Depression-HappinessScale. *Psychological Reports,* 73, 1279-1282.

Mineka, S. & Henderson, R.W. (1985). Controllability and predictability in acquired motivation. *Annual Review of Psychology, 36,* 495-529.

Moen, P., Robison, J., & Fields, V. (1994). Women's work and caregiving roles: A life course approach. *Journal of Gerontology Social Sciences,* 49 S1, 76-86.

Moos, R. H., & Billings, A. G. (1982). Conceptualizing and measuring coping resources and coping processes. In L. Goldberger & S. Breznitz (Eds.), *Handbook of stress: Theoretical and clinical aspects* (pp. 212– 230). New York: Free Press.

Murphy, E. (1983).The prognosis of depression in old age. *The British Journal of Psychiatry,* 142, 111-119.

Mutran, E. J., Reitzes, D. C., & Fernandez, M. E. (1997). Factors that influence attitudes toward retirement. *Research on Aging, 19,* 251–273.

Oakland, S. & Ostell, A. (1996). Meauring coping: A review and critique. *Human Relations, 49,* 133-155.

O'Conner, B.P. (1998). SIMPLE: All-in-one programs for exploring interactions in moderating multiple regression. Educational and Psychological Measurement, 58, 836-840.

O'Rand, A., Henretta, J., & Krecker, M. (1992). Family Pathways to Retirement. In *Families and Retirement*, edited by Maximiliane Szinovacz, David Ekerdt, & Barbara Vinick. Newbury Park, CA: Sage.

Osowiecki, D. & Compas, B.E. (1998). Psychological adjustment to cancer: Control beliefs and coping in adult cancer patients. *Cognitive Therapy and Research, 22 (5),* 483-499.

Parkes, K.R. (1984). Locus of control, cognitive appraisal, and coping in stressful episodes. *Journal of Personality and Social Psychology, 46*, 655-668.

Paty, J., Porter, L.S., & Cruise, L.J. (1998). A comparison of coping assessed by ecological momentary assessment and retrospective recall. *Journal of Personality and Social Psychology, 74,* 1670-1680.

Pavalko, E.K. & Artis, J.E. (1997). Women's caregiving and paid work: Causal relationships in late midlife." *Journal of Gerontology Social Sciences, 52 B1,* 70-79.

Pearlin, L.I. (1999). Stress and mental health: a conceptual overview. In A.V. Horwitz (Ed.), *A handbook for the study of mental health* (pp. 161-175). New York: Crambridge University Press.

Pearlin, L.I. & Schooler, C. (1978). The structure of coping. *Journal of Health and Social behavior, 19,* 2-21.

Penley, J.A., Tomaka, J., & Wiebe, J.S. (2002). The association of coping to physical and

psychological health outcomes: A meta-analytic review. *Journal of Behavioural Medicine, 25,* 551-603.

Pinquart, M., & Sorensen, S. (2000). Influences of socioeconomic status, social network, and competence on subjective well-being in later life: A meta-analysis. *Psychology and Aging, 15,* 187-224.

Price, C.A. (2001). Women and retirement: Relinquishing professional identity. *Journal of Aging Studies, 14 (1),* 81-101.

Pushkar, D., Arbuckle, T., Rousseau, F. & Bourque, P. (2003). Successful aging: The eye of the beholder. *Revue quebecoise de psychologie, 24*, 155-174.

Quick, H.E. & Moen, P. (1998). Gender, employment, and retirement quality: a life course approach to the differential experiences of men and women. *Journal of Occupational Health Psychology, 3(1),* 44-64.

Radloff, L.S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1,* 385-401.

Ratliff-Crain, J., & Baum, A., (1990). Individual differences and health: Gender, coping, and stress. In H.S. Friedman (Ed.), *Personality and Disease.* New York: John Wiley and Sons.

Reitzes, D.C. & Mutran, E.J. (2004). The transition to retirement: Stages and factors that influence retirement adjustment. *The International Journal of Aging and Human Development, 59,* 63-84.

Reitzes, D.C., Mutran, E.J., & Fernandez, M.E. (1996). Does retirement hurt well-being? Factors influencing self-esteem and depression among retirees and workers. *The Gerontologist, 36 (5),* 649-656.

Richardson, V.E. (1999).Women and retirement. *Journal of Women and Aging, 11 (2),* 49 – 66.

Richardson, V.E. & Kilty, K.M. (1991). Adjustment to retirement: continuity vs. discontinuity. *International journal of aging and human development. 33(2),* 151-69.Roberts, R. E. &Vernon, S. W. (1983). The Center for Epidemiological Studies Depression Scale: Its use in a community sample. *American Journal of Psychiatry, 140(1),* 41-46.

Rodin, J. (1986). Aging and health: Effects of the sense of control. Science, 233, 1271-1276.

Roth, S. & Cohen, L. (1986). Approach, avoidance, and coping with stress. *American Psychologist, 41,* 813–819.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80,* (1), 1-28.

Sandler, I.N. & Lackey, B. (1982). Locus of control as a stress moderator: The role of control perceptions and social support. *American Journal of Community Psychology, 10 (1),* 65 – 80.

Savishinsky, J. (1995). The unbearable lightness of retirement. *Research on Aging, 17 (3),* 243-259.

Scheier, M.F. & Carver, C.S. (1992). Effects of optimism on psychological and psychical well-being: Theoretical overview and empirical update. *Cognitive Therapy and Research, 16,* 201-228.

Schmitz, U., Saile, H., & Nilges, P. (1996). Coping with chronic pain: Flexible goal adjustment as an interactive buffer against pain-related distress. *Pain, 67,* 31-51.

Schonfield, D. (1973). Future commitments and successful aging. I: The random sample. *Journal of Gerontology, 28*, 189-196.

Schulz, R., Heckhausen, J., & O'Brien, A. (1994). Control and the disablement process in the elderly. *Journal of Social Behavior and Personality, 9,* 139-152.

Seccombe, K. & Lee, G.R. (1986). Gender differences in retirement satisfaction and its antecedents. *Research on Aging, 8 (3),* 426-440.

Seligman, M.E.P. (1975). Helplessness: On depression, development, and death. San Francisco: Freeman.

Sharpley, C.F. & Yardley, P. (1999a). The relationship between cognitive hardiness, explanatory style, and depression-happiness in post-retirement men and women. Australian Psychologist, 34 (3), 198 – 203.

Sharpley, C.F. & Yardley, P. (1999b). What makes me happy now that I'm older. Journal of Applied Health Behaviour, 1, 31-35.

Sheppard, H.L. (1976). Work and retirement. In R.H. Binstock & E. Shanas (Eds.), *Handbook of aging and the social sciences* (pp. 286-309). New York: Van Nostrand Reinhold Company.

Skinner, E.A. (1995). *Perceived control, motivation and coping*. Newbury Park, CA: Sage.

Skinner, E.A. (1996). Personality processes and individual differences: A guide to the construct of control. *Journal of Personality and Social Psychology, 71 (3),* 549-570.

Skinner, E.A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure

of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin, 129,* 216-269.

Smith, R.E., Leffingwell, T.R., & Ptacek, J.T. (1999). Can people remember how they coped?

Factors associated with discordances between same-day and retrospective reports. *Journal of Personality and Social Psychology, 76,* 1050-1061.

Somerfield, M.R., & McCrae, R.R. (2000). Stress and coping research: Methodological challenges, theoretical advances, and clinical applications. *American Psychologist, 55,* 620-625.

Sousa, L., & Lyubomirsky, S. (2001). Life satisfaction. In J. Worell (Ed.), *Encylopedia of women and gender: Sex similarities and differences and the impact of society on gender* (Vol. 2, pp. 667-676). San Diego, CA: Academic Press.

Stanton, A.L. & Snyder, P.R. (1993). Coping with a breast cancer diagnosis: A prospective study. *Health Psychology, 12*, 16-23.

Statistics Canada. (2006). A portrait of seniors in Canada (Catalogue No. 89-519-XPE). Ottawa, Ontario: Turcotte, M., & Schellenberg, G.

Suls, J. & Fletcher, B. (1985). The relative efficacy of avoidant and nonavoidant coping strategies: A meta-analysis. *Health Psychology, 4*, 249-288.

Szinovacz, M. & Washo, C. (1992). Gender differences in exposure to life events and adaptation to retirement. *Journal of Gerontology, 47(4),* 191-196.

Tabachnick, B.G. & Fidell, L.S. (2007). *Using multivariate statistics* (5th ed.). Pearson Education, Inc.: Boston.

Tamres, L.K., Janicki, D., & Helgeson, V.S. (2002). Sex Differences in Coping Behavior:

A Meta-Analytic Review and an Examination of Relative Coping. *Personality and Social Psychology Review, 6 (1),* 2-30.

Tennant, C. (2002). Life events, stress and depression: a review of recent findings. *Australian and New Zealand Journal of Psychiatry, 36 (2)*, 173-182.

Taylor, S.E. (1983). Adjustment to threatening events: A theory of cognitive adaptation. *American Psychologist, 38,* 1161-1173.

Taylor-Carter, M. A., & Cook, K. (1995). Adaptation to retirement: Role changes and psychological resources. *Career Development Quarterly, 44*, 67–82.

Tennen, H., Affleck, G., Armeli, S., & Carney, M.A. (2000). A daily process approach to coping: Linking theory, research, and practice. *American Psychologist, 55,* 626-636.

Terry, D.L. (1994). Determinants of coping: The role of stable and situational factors. *Journal of personality and Social Psychology, 66,* 895-910.

Thompson, S.C. & Spacepan, S. (1991). Perceptions of control in vulnerable populations. *Journal of Social Issues, 47*, 1-21.

Todd, M., Tennen, H., Armeli, S., & Affleck, G. (2004). Do we know how we cope? Relating daily coping reports to global and time-limited retrospective assessments. *Journal of Personality and Social Psychology, 86*, 310-319.

van Solinge, H. & Henkens, K. (2005). Couples' adjustment to retirement: a multi-actor panel study. *The journals of gerontology. Series B, Psychological sciences and social sciences, 60(1),* 11-20.

Vitaliano, P.P., DeWolfe, D.J., Maiuro, R.D., Russo, J., & Katon, W. (1990). Appraised changeability of a stressor as a modifier of the relationship between coping and

depression: A test of the hypothesis of fit. *Journal of Personality and Social Psychology, 59,* 582-592.

Vitaliano, P.P., Russo, J., Carr, J.E., Maiuro, R.D., & Becker, J. (1985). The ways of coping checklist: Revision and psychometric properties. *Multivariate Behavioural research, 20,* 3-26.

Wallston, K. A. (1992). Hocus-pocus, the focus isn't strictly on locus: Rotter's social learning theory modified for health. *Cognitive Therapy and Research, 16,* 183-199.

Weisz, J. R. (1986). Understanding the development of the understanding of control. In M. Perlmutter (Ed.), *Minnesota Symposium on Child Psychology* (Vol. 18, pp. 219-278). San Diego, CA: Academic Press.

Weisz, J.R., Southam-Gerow, M.A., & McCarty, C.A. (2001). Control-related beliefs and depressive symptoms in clinic-referred children and adolescents: Developmental differences and model specificity. *Journal of abnormal psychology, 110 (1),* 97-109.

Wrosch C., Heckhausen, J., & Lachman, M.E. (2000). Primary and secondary control strategies for managing health and financial stress across adulthood. *Psychology and Aging, 15,* 387-399.

Wyler, A. R., Masuda, M., & Holmes, T. H. (1967). Seriousness of illness rating scale. Journal of Psychosomatic Research, 11, 363-374.

Wyler, A.R., Masuda, M., & Holmes, T.H. (1971). Magnitude of life events and seriousness of illness. *Psychosomatic Medicine, 33,* 115-122.

Zautra, A.J., Sheets, V.L., & Sandler, I.N. (1996). An examination of the construct

validity of coping dispositions for a sample of recently divorced mothers. *Psychological Assessment, 8,* 256-264.

Zeidner, M. & Saklofske, D. (1996). Adaptive and maladaptive coping. In M. Zeidner, and N.S. Endler (Eds.), *Handbook of coping: Theory research, applications* (pp.505-531). New York: John Wiley & Sons.

Zuckerman, M. & Gagné, M. (2003). The COPE revised: Proposing a 5-factor model of coping strategies. *Journal of Research in Personality, 37,* 169-204.

Appendix A

Questionnaires

DQ

EDUCATION

Please mark the box corresponding to the highest level of formal education you have completed in each applicable category.

1. Primary & Secondary School:

1	2	3	4	5	6	7	8	9	10	11	12	High school diploma or equivalent

2. CEGEP/College:

one year	two years	three years	CEGEP/college diploma or equivalent

3. University:

one year undergraduate	two years undergraduate	three years undergraduate	Bachelor's degree

one year graduate	two years graduate	three years graduate	Master's degree

one year post-graduate	two years post-graduate	three years post-graduate	Doctorate degree

Other (please indicate what, for how long):

_____

_____

_____

OCCUPATION

4. What was your occupation? Please give a brief detailed description of your job & place of employment.

_____

_____

_____

_____

5. When did you stop working? Year _____ Month _____ Day _____

6. What is the official date of your retirement (if different from above) _____

7. At the time of your retirement, what was your annual salary? _____

8. Is your spouse or common-law partner retired?

☐ Yes

8a) If yes, please provide their retirement date: Year _____Month _____Day _____

8b) If yes, did this person retire from full-time or part-time work?_____

☐ No – he/she is presently working full-time
☐ No – he/she is presently working part-time
☐ n/a (my spouse/partner was not employed)
☐ n/a (I do not have a spouse/partner)

9. How much did your spouse/partner influence your decision to retire?

☐ not at all ☐ a little ☐ somewhat ☐ quite a bit ☐ very much

FINANCES

10. What is your present annual income from all sources (e.g. pension, investments, etc.)? (please circle the corresponding number)

1. Less than $10,000
2. $10,000 – $19,999
3. $20,000 – $29,999
4. $30,000 – $39,999
5. $40,000 – $49,999
6. $50,000 – $59,999
7. $60,000 – $69,999
8. $70,000 – $79,999
9. $80,000 – $89,999
10. $90,000 – $99,999
11. $100,000 – $109,999
12. $110,000 – $119,999
13. $120,000 – $129,999
14. $130,000 – $139,999
15. $140,000 – $149,999
16. $150,000 or more

11. What is your total family income from all sources?
(please circle the corresponding number)
    1) Less than $10,000
    2) $10,000 – $19,999
    3) $20,000 – $29,999
    4) $30,000 – $39,999
    5) $40,000 – $49,999
    6) $50,000 – $59,999
    7) $60,000 – $69,999
    8) $70,000 – $79,999
    9) $80,000 – $89,999
    10) $90,000 – $99,999
    11) $100,000 – $109,999
    12) $110,000 – $119,999
    13) $120,000 – $129,999
    14) $130,000 – $139,999
    15) $140,000 – $149,999
    16) $150,000 or more

12. Compared to other people of your age that you know, how would you rate your financial situation? (please circle the corresponding number)

1) A lot worse than most
2) Worse than most
3) A little worse than most
4) About the same as most
5) A little better than most
6) Better than most
7) A lot better than most

LIVING ARRANGEMENTS

13. What is your civil status?

- ☐ Married
- ☐ Single
- ☐ Divorced
- ☐ Widowed
- ☐ Common-Law
- ☐ Other (please specify) : _____

14. Whom do you live with?

- ☐ Alone
- ☐ Spouse
- ☐ Sibling(s)
- ☐ Friend(s)
- ☐ Child(ren)
- ☐ Other (please specify) : _____

15. What type of dwelling do you live in?

- ☐ Apartment
- ☐ Condo
- ☐ Duplex/Triplex
- ☐ House
- ☐ Retirement community/residence
- ☐ Other (please specify) : _____

LANGUAGE

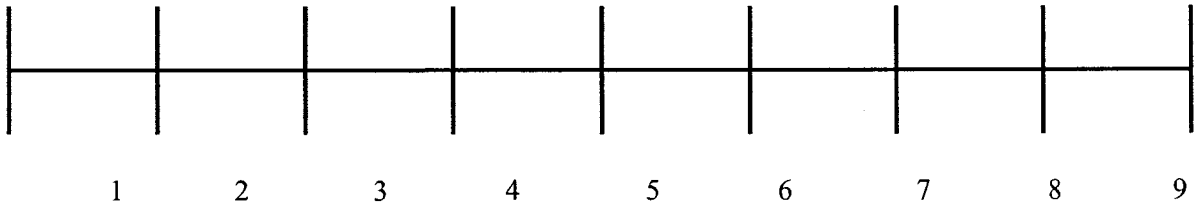
16. What is your primary language (i.e. the language that you know best)?_____

17. What is your second language? _____

18. What is your third language? _____

HQ

Extremely Ill — Average Canadian — Extremely Vigorous



This is a health scale. People in extremely poor health are rated as **1**, that is, extremely ill. People with excellent health are called extremely vigorous, that is **9**. The average Canadian is rated as **5**.

Where would you put yourself on this scale?
Mark the number with an **X**.

Now think of people your own age in general. Where would you put them on this scale?
Mark the number with an **O**.

Think of the healthiest time of your life. What would your rating be then?
Mark the number with a **B**.
How old were you then? Age: _____

The following questions deal with your general health.

How many times did you visit a doctor in the last year?

- ☐ Never
- ☐ 1 or 2 times
- ☐ 3 or 4 times
- ☐ 5 or 6 times
- ☐ 7 or 8 times
- ☐ 9 times or more

Compared to one year ago, is your health…

☐ Worse ☐ About the same ☐ Better

How much do health problems stand in the way of your doing the things you want to do?

☐ Not at all ☐ A little ☐ A great deal

The following questions deal with specific illnesses or conditions that people may have.

Please check those symptoms or illnesses you have experienced in the **last year**.

☐ I have NOT had any symptoms or illnesses in the last year.

☐ 1. Headache
☐ 2. Dizziness
☐ 3. Varicose veins
☐ 4. Hemorrhoids
☐ 5. Low blood pressure
☐ 6. Drug allergy
☐ 7. Bronchitis
☐ 8. Hyperventilation
☐ 9. Bursitis
☐ 10. Lumbago
☐ 11. Migraine
☐ 12. Hernia
☐ 13. Irregular heart beats
☐ 14. Overweight/Obesity
☐ 15. Anemia
☐ 16. Anxiety reaction
☐ 17. Gout
☐ 18. Pneumonia
☐ 19. Depression
☐ 20. Kidney/Urinary infection
☐ 21. Sexual intercourse difficulties
☐ 22. Thyroid Problems
☐ 23. Asthma
☐ 24. Glaucoma
☐ 25. Gallstones
☐ 26. Arthritis/Osteoarthritis
☐ 27. Slipped disk
☐ 28. Hepatitis
☐ 29. Kidney stones
☐ 30. Peptic ulcer
☐ 31. Pancreatitis
☐ 32. High blood pressure
☐ 33. Deafness
☐ 34. Collapsed lung
☐ 35. Epilepsy
☐ 36. Chest pain
☐ 37. Nervous breakdown
☐ 38. Diabetes
☐ 39. Blood clots
☐ 40. Hardening arteries
☐ 41. Emphysema
☐ 42. Tuberculosis
☐ 43. Alcoholism
☐ 44. Drug addiction
☐ 45. Cirrhosis of the liver
☐ 46. Parkinson's
☐ 47. Blindness
☐ 48. Stroke
☐ 49. Muscular dystrophy
☐ 50. Cerebral palsy
☐ 51. Heart failure
☐ 52. Heart attack
☐ 53. Brain infection
☐ 54. Multiple sclerosis
☐ 55. Bleeding brain
☐ 56. Uremia
☐ 57. Cancer
☐ 58. Leukemia
☐ 59. Cataracts
☐ 60. Difficulty with vision
☐ 61. Rheumatism
☐ 62. Uterine/Breast fibroids
☐ 63. Breast inflammation
☐ 64. Pelvic inflammation
☐ 65. Vaginal infection
☐ 66. Cyst
☐ 67. Other (please describe) ⟹
☐ 68. Colour Blindness
☐ 69. Tendonitis
☐ 70. Cardiomyopathy
☐ 71. Prostate Problems
☐ 72. Shingles
☐ 73. Degeneration of the eye
☐ 74. Chicken Pox
☐ 75. Cholesterol Problems
☐ 76. Internal Bleeding
☐ 77. Allergies/Hives
☐ 78. Osteoporosis
☐ 79. Gastric Reflux/Gastroenteritis
☐ 80. Psoriasis/Exema
☐ 81. Sleep Apnea
☐ 82. Carpal Tunnel Syndrome
☐ 83. Muscle/Ligament/Tendon tear
☐ 84. Angina
☐ 85. Lung Problems
☐ 86. Balance Problems
☐ 87. Dental Problems
☐ 88. Incontinence
☐ 89. Colon Problems
☐ 90. Skin Infections
☐ 91. Neurological Problems
☐ 92. Sciatica
☐ 93. Sinusitis/Sinus Infection
☐ 94. Manic Depression
☐ 95. Vitiligo
☐ 96. Hearing Problems
☐ 97. Persistent Backache
☐ 98. Insomnia
☐ 99. Addison's Disease
☐ 100. Fibromyalgia
101. Raynaud Disease

- ☐ 102.Blood Disorder
- ☐ 103.Hypoglycemia
- ☐ 104.Spinal Disc Degeneration
- ☐ 105.Rosacea
- ☐ 106.Burnout

67. Please list any OTHER symptoms or illnesses that you have experienced in the last year:

The following questions refer to the use of medicines and pills.

Please list ALL of the medications which you have taken in the **last 30 days.** This includes both over-the-counter medications (like pain relievers, cough/cold medicine, stomach remedies, sleeping pills, diet pills, etc.) and prescription drugs (like tranquilizers, anti-depressants, allergy medications, antibiotics, diabetes medicine, heart medication, etc.). For each medication write the exact name (e.g. Penicillin), the reason for taking it (e.g. bronchial infection), and the treatment course (e.g. 20mg twice a day for seven days). Finally, please indicate whether the medication was prescribed by a doctor.

Name of medication	Reason	Treatment Course	Prescribed?
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No
			☐ Yes ☐ No

☐ I have not taken any medications in the last thirty days.

The following questions refer to hospital stays.

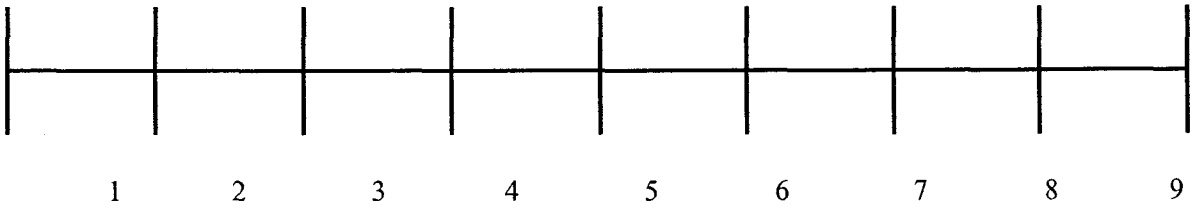
Have you been hospitalized (i.e. admitted) **since January 2000**? ☐ Yes ☐ No

If yes, how many times? _____

In the space below, please indicate why you were hospitalized and the duration of each hospital stay.

SM

Not at all Stressed | Average Canadian | Extremely Stressed



This is a stress scale.
People who have no stress in their lives are rated as **1**, that is not at all stressed.
People who experience an enormous amount of stress are rated as **9,** that is extremely stressed.
The average Canadian is rated as **5**.

Where would you put yourself on this scale?
Mark the number with an **X**.

Now think of people your own age in general. Where would you put them on this scale?
Mark the number with an **O**.

Think of the time of your life when you were the least stressed. What would your rating be then?
Mark the number with a **B**.

How old were you then? Age: _____

DC

We are interested in how people respond when they confront difficult or stressful events in their lives. There are lots of ways to deal with stress. This questionnaire asks you to indicate what you generally do and feel, when you experience stressful events. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress.

Using the response choices listed just below, please circle one number for each item. Please try to respond to each item separately in your mind from each other item. Choose your answers thoughtfully, and make your answers as true FOR YOU as you can. Choose the most accurate answer for you—not what you think "most people" would say or do. Indicate what YOU usually do when YOU experience a stressful event.

1	2	3	4
I usually don't do this at all	**I usually do this a little bit**	**I usually do this a medium amount**	**I usually do this a lot**

1. I think about how I might best handle the problem.	1	2	3	4
2. I keep myself from getting distracted by other thoughts or activities.	1	2	3	4
3. I learn to live with it.	1	2	3	4
4. I get comfort and understanding from someone.	1	2	3	4
5. I admit to myself that I can't deal with it, and quit trying.	1	2	3	4
6. I make jokes about it.	1	2	3	4
7. I pray or meditate.	1	2	3	4
8. I refuse to believe that it has happened.	1	2	3	4
9. I concentrate my efforts on doing something about the situation I am in.	1	2	3	4
10. I turn to work or other activities to take my mind off things.	1	2	3	4
11. I look for something good in what is happening.	1	2	3	4

1	2	3	4
I usually don't do this at all	**I usually do this a little bit**	**I usually do this a medium amount**	**I usually do this a lot**

12. I think hard about what steps to take.	1	2	3	4
13. I focus on dealing with this problem, and if necessary let other things slide a little.	1	2	3	4
14. I get used to the idea that it happened.	1	2	3	4
15. I discuss my feelings with someone.	1	2	3	4
16. I laugh about the situation.	1	2	3	4
17. I seek God's help.	1	2	3	4
18. I act as though it hasn't even happened.	1	2	3	4
19. I take additional action to try to get rid of the problem.	1	2	3	4
20. I ask people who have had similar experiences what they did.	1	2	3	4
21. I get upset and let my emotions out.	1	2	3	4
22. I go to movies or watch TV, to think about it less.	1	2	3	4
23. I learn something from the experience.	1	2	3	4
24. I try to come up with a strategy about what to do.	1	2	3	4
25. I put aside other activities in order to concentrate on this situation.	1	2	3	4
26. I accept that this has happened and that it can't be changed.	1	2	3	4
27. I get emotional support from others.	1	2	3	4
28. I just give up trying to reach my goal.	1	2	3	4
29. I make fun of the situation.	1	2	3	4

1	2	3	4
I usually don't do this at all	**I usually do this a little bit**	**I usually do this a medium amount**	**I usually do this a lot**

30. I put my trust in God.	1	2	3	4
31. I pretend that it hasn't really happened.	1	2	3	4
32. I do what has to be done, one step at a time.	1	2	3	4
33. I talk to someone who could do something concrete about the problem.	1	2	3	4
34. I try to grow as a person as a result of the experience.	1	2	3	4
35. I make a plan of action.	1	2	3	4
36. I try hard to prevent other things from interfering with my efforts at dealing with this.	1	2	3	4
37. I accept the reality of the fact that it has happened.	1	2	3	4
38. I talk to someone about how I feel.	1	2	3	4
39. I give up the attempt to get what I want.	1	2	3	4
40. I joke around about it.	1	2	3	4
41. I try to find comfort in my religion or spiritual beliefs.	1	2	3	4
42. I say to myself "this isn't real".	1	2	3	4
43. I talk to someone to find out more about the situation.	1	2	3	4
44. I let my feelings out.	1	2	3	4
45. I daydream about things other than this.	1	2	3	4
46. I try to see it in a different light, to make it seem more positive.	1	2	3	4
47. I take action to try to make the situation better.	1	2	3	4

1	2	3	4
I usually don't do this at all	**I usually do this a little bit**	**I usually do this a medium amount**	**I usually do this a lot**

48. I do something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
49. I get help and advice from other people.	1	2	3	4
50. I express my negative feelings.	1	2	3	4
51. I give up the attempt to cope.	1	2	3	4
52. I say things to let my unpleasant feelings escape.	1	2	3	4

PC

On this page is a series of attitude statements. Each represents a commonly held opinion. You will probably agree with some items and disagree with others. We are interested in the extent to which you agree or disagree with such matters of opinion. Read each statement, decide if you agree or disagree and the strength of your opinion, and then circle the appropriate number.

1	2	3	4	5	6	7
Disagree Strongly	**Disagree Somewhat**	**Disagree A Little**	**Don't Know**	**Agree A little**	**Agree Somewhat**	**Agree Strongly**

1.	I have little control over the things that happen to me.	1	2	3	4	5	6	7
2.	What happens to me in the future mostly depends on me.	1	2	3	4	5	6	7
3.	There is really no way I can solve all of the problems I have.	1	2	3	4	5	6	7
4.	There is little I can do to change many of the important things in my life.	1	2	3	4	5	6	7
5.	I can do just about anything I really set my mind to.	1	2	3	4	5	6	7
6.	I often feel helpless in dealing with the problems of life.	1	2	3	4	5	6	7
7.	Sometimes I feel that I'm being pushed around in life.	1	2	3	4	5	6	7
8.	When I really want to do something, I usually find a way to succeed at it.	1	2	3	4	5	6	7
9.	Whether or not I am able to get what I want is in my own hands.	1	2	3	4	5	6	7
10.	Other people determine most of what I can and cannot do.	1	2	3	4	5	6	7

11. What happens in my life is often beyond my control.	1	2	3	4	5	6	7
12. There are many things that interfere with what I want to do.	1	2	3	4	5	6	7

CESD

Below is a list of ways you may have felt or behaved. Please write a number next to each statement indicating how often you have felt this way during the past week.

0 – Rarely or none of the time (less than 1 day)
1 – Some or a little of the time (1-2 days)
2 – Occasionally or a moderate amount of the time (3-4 days)
3 – Most or all of the time (5-7 days)

_____ 1. I was bothered by things that usually don't bother me.

_____ 2. I did not feel like eating; my appetite was poor.

_____ 3. I felt that I could not shake off the blues even with help from my family and friends.

_____ 4. I felt that I was just as good as other people.

_____ 5. I had trouble keeping my mind on what I was doing.

_____ 6. I felt depressed.

_____ 7. I felt that everything I did was an effort.

_____ 8. I felt hopeful about the future.

_____ 9. I thought my life had been a failure.

_____ 10. I felt fearful.

_____ 11. My sleep was restless.

_____ 12. I was happy.

_____ 13. I talked less than usual.

_____ 14. I felt lonely.

_____ 15. People were unfriendly.

_____ 16. I enjoyed life.

_____ 17. I had crying spells.

_____ 18. I felt sad.

_____ 19. I felt that people disliked me.

_____ 20. I could not get going.

Appendix B

Tables

Table B1

Descriptive Statistics for Coping Subfactors

	Women			Men		
Variables	Range	Mean	SD	Range	Mean	SD
Active Coping	1.25 - 4	3.33	.548	1.75 - 4	3.23	.584
Planning*	1.25 - 4	3.40	.568	1.5 - 4	3.24	.624
Suppression of Competing Activities	1.25 - 4	2.75	.608	1 – 3.75	2.67	.552
Venting of Emotions***	1- 4	2.58	.790	1- 4	2.09	.621
Instrumental Social Support***	1- 4	2.97	.738	1- 4	2.66	.762
Emotional support***	1- 4	2.90	.837	1- 4	2.34	.827
Behavioural Disengagement**	1- 3	1.91	.457	1- 3.25	1.76	.461
Mental Disengagement***	1- 4	2.21	.656	1 – 3.75	1.90	.617
Denial	1- 3.75	1.41	.514	1- 3.25	1.41	.509
Acceptance	1- 4	2.73	.723	1- 4	2.68	.685
Religion***	1- 4	2.16	1.093	1- 4	1.64	.909
Humour	1- 4	1.82	.833	1- 4	1.89	.744

Note. SD refers to Standard Deviation. $N = 347$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table B2

Summary of One-Step Regression Model for Variables Predicting Women's Depression Scores

Variable	B	SE B	□	Zero-Order Correlation	Part Correlation
Age	-.134	.078	-.096	-.031	-.088
Subjective Financial Situation	-.011	.080	-.008	-.105	-.007
Square root of Number of Illnesses	.091	.078	.066	.265	.061
Stress	.424	.085	.305***	.559	.257
Mastery	-.076	.050	-.106	-.404	-.079
Outcome Control	-.146	.034	-.298***	-.590	-.220
Avoidance Coping	.218	.068	.210**	.261	.166
Emotion-Focused Coping	-.275	.106	-.165**	-0.191	-.134
Problem-Focused Coping	.004	.040	.005	-.091	.005
Social Support Seeking	.014	.042	.019	.148	.017
Avoidance Coping by Mastery	.015	.038	.029	-.115	.020
Emotion-Focused Coping by Mastery	-.122	.060	-.160*	.090	-.105
Problem-Focused Coping by Mastery	.044	.024	.126	.039	.094
Social Support Seeking by Mastery	-.027	.026	-.069	-.037	-.054
Avoidance Coping by Outcome Control	-.066	.028	-.182*	-.117	-.119
Emotion-Focused Coping by Outcome Control	.118	.048	.183*	.160	.127
Problem-Focused Coping by Outcome Control	-.031	.019	-.109	-.001	-.083
Social Support Seeking by Outcome Control	.037	.017	.149*	.065	.111

Adjusted $R^2 = .500$; $F(187) = 11.405$, $N = 188$, $p < .001$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table B3

Summary of One-Step Regression Model for Variables Predicting Men's Depression Scores

Variable	B	SE B	β	Zero-Order Correlation	Part Correlation
Age	.131	.083	.108	.308	.097
Financial Adequacy	-.002	.084	-.002	-.266	-.001
Square root of Number of Illnesses	.091	.083	.075	.268	.067
Stress	.181	.084	.149*	.334	.132
Mastery	-.048	.058	-.074	-.398	-.051
Outcome Control	-.166	.038	-.368***	-.573	-.264
Avoidance Coping	.151	.061	.183*	.374	.152
Emotion-Focused Coping	.171	.098	.116	.136	.106
Problem-Focused Coping	-.030	.042	-.051	-.231	-.044
Social Support Seeking	-.107	.048	-.162*	-.085	-.137
Avoidance Coping by Mastery	-.037	.038	-.086	-.079	-.059
Emotion-Focused Coping by Mastery	.115	.068	.154	.085	.103
Problem-Focused Coping by Mastery	.017	.026	.052	.120	.039
Social Support Seeking by Mastery	.031	.032	.083	.021	.059
Avoidance Coping by Outcome Control	.001	.026	.005	-.108	.003
Emotion-Focused Coping by Outcome Control	-.063	.050	-.116	.026	-.077
Problem-Focused Coping by Outcome Control	-.014	.017	-.064	.032	-.049
Social Support Seeking by Outcome Control	-.015	.021	-.060	.009	-.043

Adjusted $R^2 = .408$; $F(158) = 7.057$, $p < .001$, $N = 159$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table B4

Women's Variable Intercorrelation Matrix

	CES-D	Mastery	OC	PFC	EFC	SSS	Avoidance	Stress	Illness	Age	Finance
CES-D	1.00	-0.40*	-0.59*	-0.09	-0.19	0.15	0.26*	0.56*	0.26*	-0.03	-0.11
Mastery		1.00	0.52*	0.16	0.22	-0.02	-0.17	-0.23	-0.15	-0.12	0.15
OC			1.00	0.09	-0.59	-0.06	-0.23	-0.48*	-0.38*	-0.09	0.21
PFC				1.00	0.18	0.16	-0.07	0.01	-0.08	0.03	-0.03
EFC					1.00	0.12	0.40	-0.15	0.00	0.06	-0.05
SSS						1.00	0.29*	0.12	0.16	-0.06	-0.10
Avoidance							1.00	0.12	0.10	0.16	-0.07
Stress								1.00	0.23	0.05	-0.13
Illnesss									1.00	0.05	-0.16
Age										1.00	-0.25
Fianance											1.00

Note. Statistics represent Pearson's Correlation values. With the Bonferroni Correction * $p <$ .00091, $N = 188$. OC = Outcome Control; PFC = Problem-Focused Coping; EFC = Emotion-Focused Coping; SSS = Social Support Seeking

Table B5

Men's Variable Intercorrelation Matrix

	CES-D	Mastery	OC	PFC	EFC	SSS	Avoidance	Stress	Illness	Age	Finance
CES-D	1.00	-0.40*	-0.57*	-0.23	0.14	-0.08	0.37*	0.33*	0.22	0.31*	-0.27
Mastery		1.00	0.53*	0.34*	0.12	0.00	-0.21	-0.28*	-0.20	-0.27	0.33*
OC			1.00	0.21	-0.06	-0.02	-0.32*	-0.34*	-0.27	-0.25	0.30*
PFC				1.00	0.16	0.29*	-0.16	-0.10	-0.04	-0.08	0.16
EFC					1.00	0.09	0.19	-0.07	0.02	0.09	-0.05
SSS						1.00	0.22	0.08	-0.04	-0.05	-0.04
Avoidance							1.00	0.13	0.04	0.26	-0.25
Stress								1.00	0.26	0.09	-0.18
Illnesss									1.00	0.08	-0.23
Age										1.00	-0.22
Fianance											1.00

Note. Statistics represent Pearson's Correlation values. With the Bonferroni Correction * $p <$ .00091, $N = 159$. OC = Outcome Control; PFC = Problem-Focused Coping; EFC = Emotion-Focused Coping; SSS = Social Support Seeking